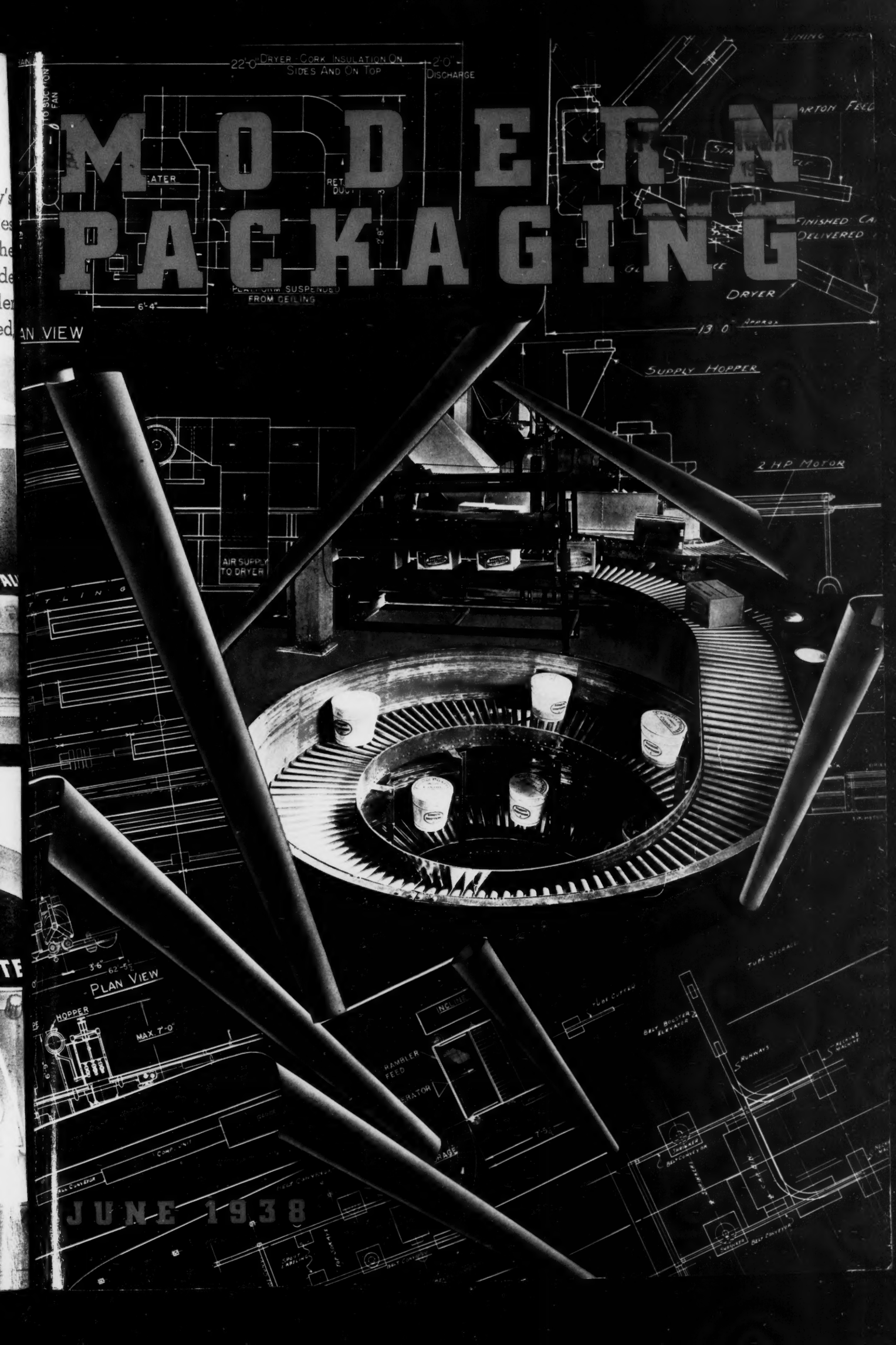
MODERN PACKAGING



"Sure there are other good can companies

... but with my competition tough as it is, I need the new package developments *first.* And I feel a whole lot surer of *getting* 'em first, doing business with American Can."

CANCO AMERICAN CAN COMPANY, 230 PARK AVENUE, NEW YORK, N. Y.
World's Largest Manufacturer of Metal and Fibre Containers

PERIODICAL

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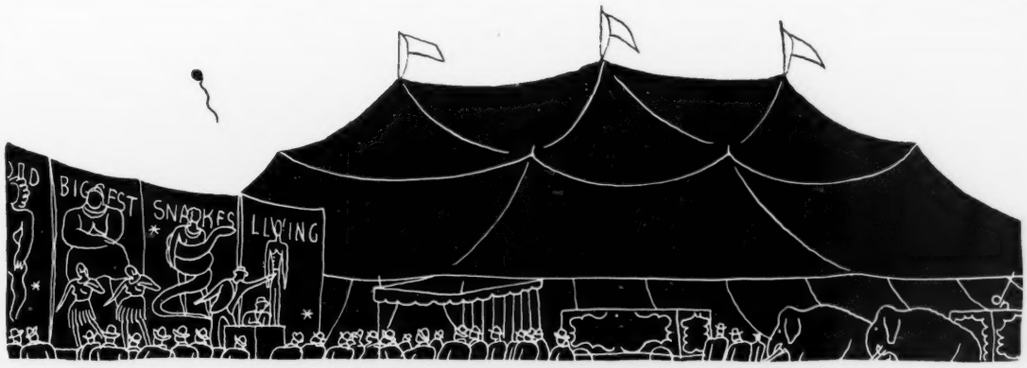
JUN 20 1938
DETROIT



TOPS

EARLY, in the half-light of morn, a meadow on the fringe of town becomes a thing of life and animation . . . color and romance. Across its usual still face mysterious shadow-shapes come and go. There is the muffled thud-thud of trampling hoofs . . . whip cracks . . . creaking wheels . . . vivid expletives . . . and finally, out of a seemingly hopeless tangle of canvas, ropes and poles, the *big top* emerges. It is as though a new and fantastic world had been created over night . . . *the circus has come to town!* Soon, down the avenue, there is a glitter of crimson and gold in the morning sun . . . a blare of brass . . . the clank of chains and rumble of steel bound wheels. Elephants stolidly march trunk to tail . . . sleek, striped cats pace nervously behind steel bars . . . white-faced clowns thread their merry way through the plumed and robed cavalcade. Young America draws back from the sidewalk's edge with that delicious fear which is tempered with curiosity and enjoyment. And then, like the fabled piper, this colorful caravan with its steaming calliope leads the way for children young and children old back to the meadow of mystery on the fringe of town. Who doesn't love the circus? Pink lemonade, double-jointed peanuts, wild beasts, strange smells, queer freaks, acrobatic feats of skill and fearlessness, quaint antics of clowns, spirited horses and clattering chariot races . . . thrills, laughter and excitement enough in one afternoon to last the whole year through. And finally, the weary, half-regretful return to town and the hum-drum, work-a-day world. Work-a-day world? That snaps us back to realities. Under the "cone top" of the Phoenix Can will be found many *stellar performers* . . . Energine Cleaning Fluid, Fuller Furniture Polish, Mimeograph Ink, McAleer Automobile Polish, Acheson Graphited Oil, Viscol Waterproofing Fluid. We could name many more. But these should be sufficient to indicate that the Phoenix Can is the choice of leaders in their respective fields. Need we add that these products put on a *good show* under the "cone top" of a Phoenix Can?

PHOENIX METAL CAP CO.

2444 W. 16th St., Chicago 3720 14th Ave., Brooklyn

Branch Offices: Philadelphia, Baltimore, Boston, Cleveland. Cincinnati. St. Louis, San Francisco, Los Angeles

MODERN PACKAGING

JUNE 1938 • VOLUME 11 • NUMBER 10

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NEXT MONTH

The "dog days" of July will bring you a diversified issue of MODERN PACKAGING—with a timely story on the development and the unusual success of the Shulton Early American bath accessory line.

Color fans may look forward to the third and concluding article of our series on color—a series which has aroused much interest and some heated controversy. (See Colorist and Designer Arthur Allen's comments on page 80 of this issue.)

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ABP

Authentic facts relating to editorial scope and readership analysis.

MEMBER AUDIT BUREAU OF CIRCULATIONS

Impartial measurement of reader interest in terms of paid circulation.

From a recent financial service:

"The keen competition and narrow profit margins which characterize most of our industries have made it increasingly hazardous to continue production with outmoded equipment."

HERE'S WHAT McKESSON & ROBBINS DID ABOUT IT!

—Switched to (4) *Portable* Redington Machines Which Now Carton Over (40) Bottled Products from Iodine to Mineral Oil Ranging in Size from (9/16) Ounce to (8) Ounces

McKesson & Robbins had a complicated problem, indeed. To handle tincture of iodine and milk of magnesia on the same line is inadvisable. To have cartoning machines adjustable for the wide range of bottle sizes required for each production line was out of the question, too. So this fine pharmaceutical house had to be content with slow, out-moded machines and hand cartoning (on some products) . . . until they solved their problem with Redingtons.

Today *four portable* Redington Continuous Loading Cartoning Machines are cartoning their entire output. All four are adjustable to some extent. The total adjustability of all machines covers the entire range from 9/16 oz. to 8 oz. Bottling lines have been arranged by type of product . . . each line handling practically every size. *Because each cartoner is portable, the proper unit for the size bottle then being handled can be moved into the production line.*

As a result, cartoning costs are decidedly lower . . . profit margins wider for McKesson & Robbins.

Just a few of the dozens of products of McKesson & Robbins cartoned on a battery of four Redington Continuous Loading Cartoning Machines.

F. B. REDINGTON CO. (Est. 1897) 110-112 So. Sangamon St. CHICAGO, ILL.

REDINGTON *Packaging Machines*

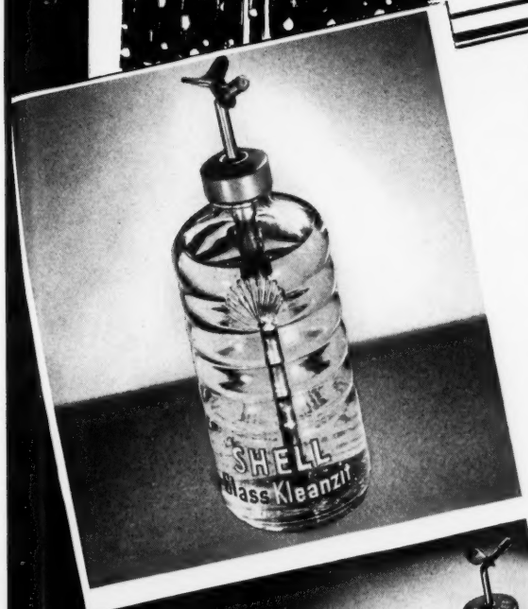
for CARTONING • CELLOPHANE WRAPPING • CARTON SEALING

WANTED

Our group of research chemists and engineers, whose successful packages are already in nearly every home in the land, is looking for some new and tough jobs to solve. Problems in food protection papers particularly solicited. Will not give up until they know the answer. Address problem to Kalamazoo Vegetable Parchment Co., Parchment, Kalamazoo, Michigan.

PUT A FEDERAL SPRAYER ON JUST ONE COUNTER

And Watch Mrs. America Turn and Try it Out!



This is the secret of Federal Sprayers:

No housewife can resist *trying* one of these handy appliances when it's within easy reach on the counter. And in one moment of self-demonstration, a Federal Sprayer has sold itself and your product! Its advantages are obvious. Every housewife recognizes that these sturdy, foolproof appliances mean more *convenient* use of your product . . . more *economical* use of it . . . and an end to mess and trouble. She knows that all she has to do is press down the plunger, and she gets a spray that is just right for the best application of your product.

That's the reason the Shell Companies adopted the Federal Sprayer for their remarkable new product—"Shell Glass Kleanzit". The accompanying illustrations show the Shell "family" which has received enthusiastic reception from "Coast to Coast".

For your product too, Federal's engineers have already developed one of these low cost appliances suited to your container and your needs.

Write for full information. Or better, send us one of your packages, and we will promptly return it with the sprayer that will shoot your sales higher than they ever went before.

FEDERAL TOOL CORPORATION

SPECIALTY DIVISION

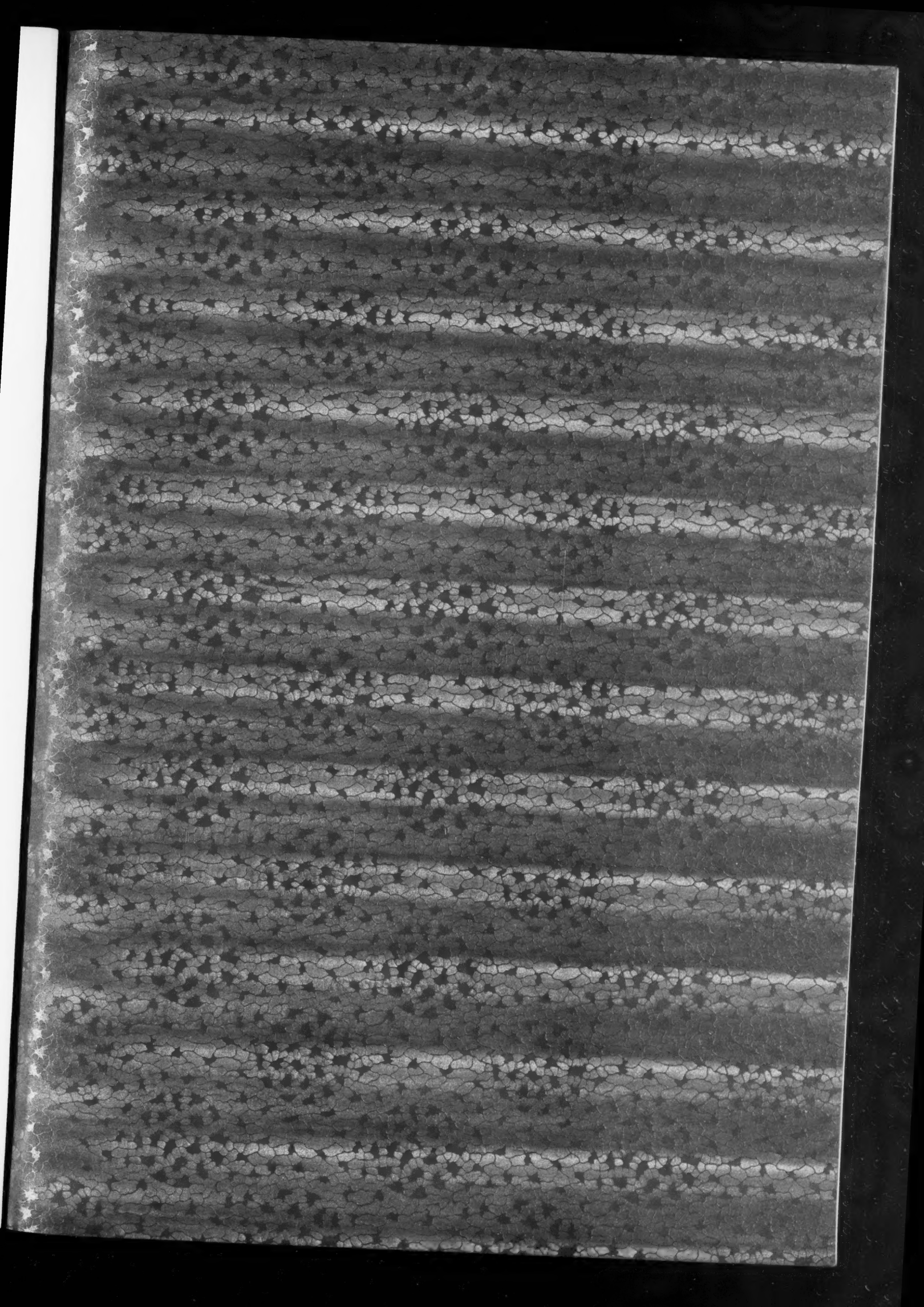
400 NORTH LEAVITT STREET CHICAGO, ILL.

LEADERSHIP

Aggressive, tireless as the knights of old, the Men of Gaylord are constantly on the quest for ways to better serve their clients and the entire shipping world. It is this ceaseless, skilled effort that has won for Gaylord that confidence in which its leadership is so deeply rooted.

GAYLORD CONTAINER CORPORATION

General Offices: ST. LOUIS



SATEEN = Saxe Blue

EMBOSSED 246

This Hampden embossed Sateen has been received with universal acclaim. It is as though you were looking through a delicate lace drape, into scintallating streams of light. Words are not enough. You must see this new paper on your box to really appreciate the extent of its appeal.

Sample working sheets in a wide variety of Sateen shades will be gladly mailed as you may direct.

HAMPDEN GLAZED PAPER & CARD CO. - - Holyoke, Mass.

SALES REPRESENTATIVES

Chicago, Ill. — 500 So. Peoria St.
Philadelphia, Pa. — 412 Bourse B'ld'g.
New York, N. Y. — 60 East 42nd St.
San Francisco, Calif. — 420 Market St.
Toronto, Canada — 137 Wellington St. West
Fred'k. Johnson & Co., Limited — 234, Upper Thames Street — London, E. C. 4, England

They're "BIG TIME" IN THE WORLD MARKETS

Blazing a trail of good-will, consumer acceptance and lasting popularity for the products they contain, Kimble Glass Vials carry a never-ending stream of commodities to the far corners of the earth. Nationally and internationally known articles—pills, powders, capsules, oils, chemicals, drugs, cosmetics, perfumes—blanket the world markets in their transparent, easy-to-carry Kimble Glass Vials—and the sales and profits of these manufacturers keep mounting steadily!

If you have a product that is as yet little known—if you have one that is well-known but needs a new and modern cloak to stimulate sales—confer with Kimble FIRST. From the many types of standard and tailor-made Vials available, the ideal small glass container may be selected for your sampling or packaging purpose. To join the ranks of Kimble Glass users means immediate reduction of your shipping costs, maximum consumer appeal for your product, and the winning of wider, more extensive and profitable markets.

★ ★ ★

Make your sampling or packaging program a "big time" issue —with Kimble Vials showing the way to assured success!

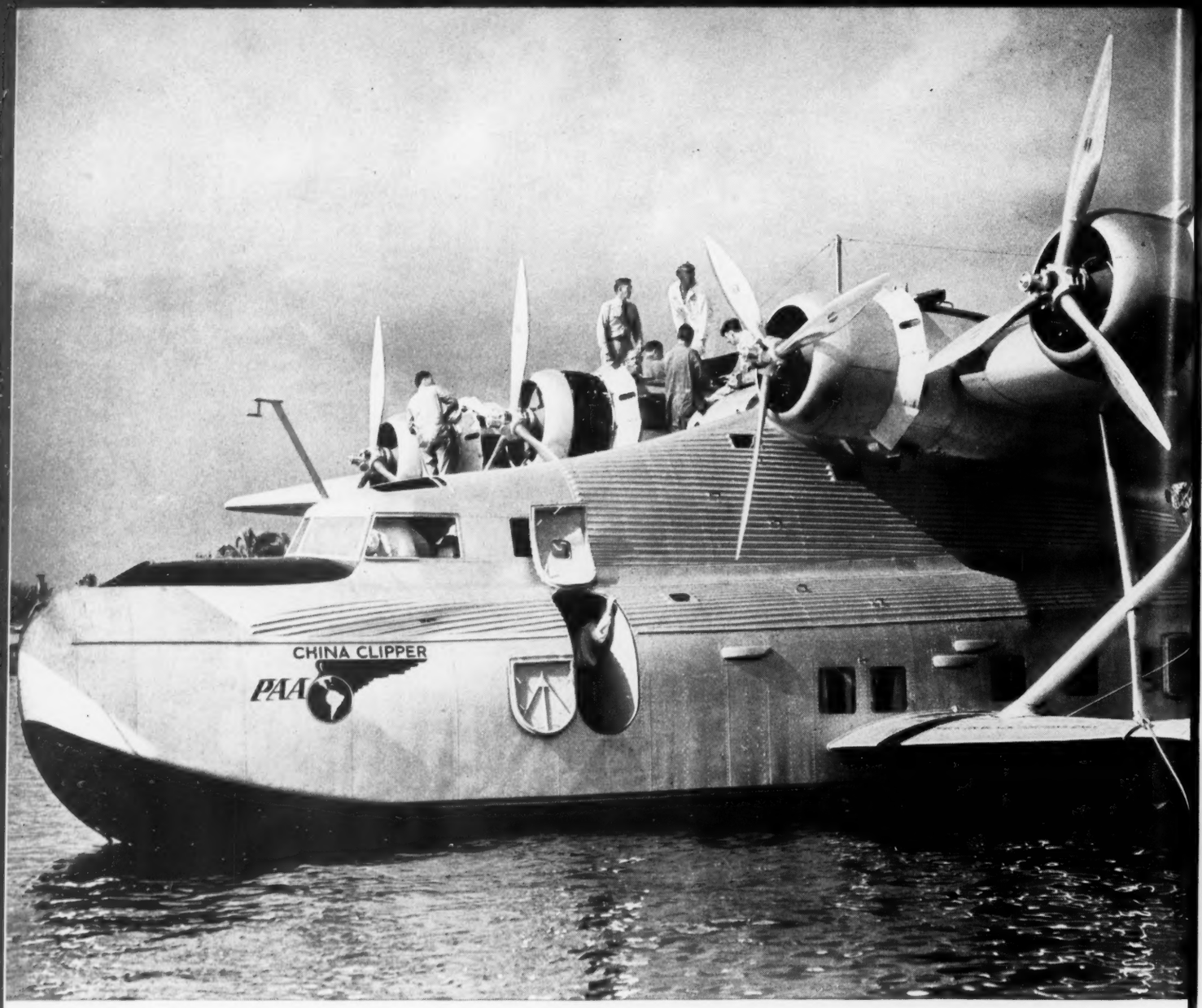
KIMBLE VIALS

K KIMBLE GLASS

• • • *The Visible Guarantee of Invisible Quality* • • •

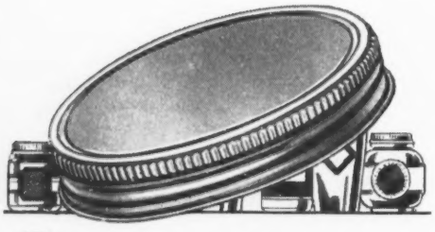
KIMBLE GLASS COMPANY • • • • VINELAND, N. J.

NEW YORK • • CHICAGO • • PHILADELPHIA • • DETROIT • • BOSTON



The China Clipper being groomed by its ground crew in preparation for a flight. Courtesy Pan American Airways

EVERY DETAIL *Must* BE RIGHT



CROWN CLOSURES

"BETTER SEALING FOR BETTER BUSINESS"

SCREW CAPS
V. P. O. CAPS
MASON CAPS
DOUBLE SHELL CAPS

CCS

CROWNS
LUG CAPS
VACUUM CAPS
CAPPING MACHINERY

THESE men have a grave responsibility. They are preparing this great plane for its flight across the ocean. Upon their care and attention to detail depends the safety of passengers and crew for thousands of miles of flight. ♦ We approach the manufacture of Crown Closures with the same sense of responsibility. The unvarying vigilance of CCS Employees in the manufacture of Crown Closures assures you of uniform, dependable sealing to carry your product safely from your plant to the consumer's home. ♦ There's a Crown Closure to meet your requirements. Get samples and compare them. They are yours for the asking.

CROWN CORK AND SEAL COMPANY • BALTIMORE, MD.

World's Largest Makers of Closures for Glass Containers

HENRY HEIDE, INC.
Special waxed innerwrap for automatic carton lining.

WM. J. WISCHMANN, INC.
Big Bill penny bubble gum, wrapped in Riegel's dry-waxed sulphite.

PHOEBE PHELPS CARAMEL CO.
Caramels in clip with printed Diafane caramel wrap and overwrap of transparent cellulose.

THE GEO. CLOSE CO.
Closies caramel clip, overwrapped with Riegel's Diafane.

SWEETS COMPANY OF AMERICA
Tootsie caramels in boat, with printed Diafane caramel wrap and overwrap of transparent cellulose.

PHOENIX CANDY CO.
English-Style Toffee with special Riegel innerwrap.

METRO CHOCOLATE CO.
Tom Tom pops, wrapped in Riegel's printed sucker wrap.

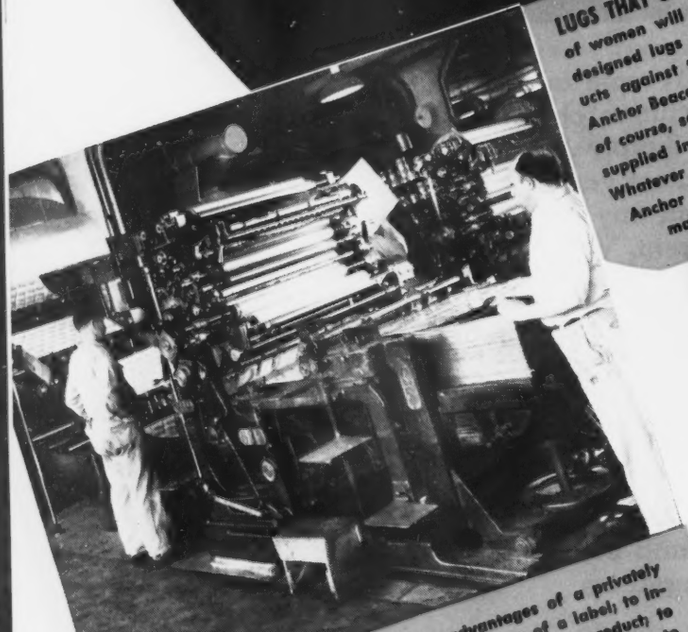
DAY BY DAY, more and more leading candy manufacturers change to Riegel papers. The reason? Simply because the Riegel mills offer the greatest variety of packaging papers available from any one source — papers that are transparent, opaque, waxed, laminated, laquered, embossed, colored, printed — almost every standard type there is, as well as countless special papers tailor-made to fit individual packaging requirements. In many other fields such as baking, tobacco, drug and food the value of Riegel papers has been similarly proven. Investigate our ability to serve you from the combined standpoint of sales appeal, production efficiency and economy. Send for portfolio of packaging papers.

RIEGEL PAPER CORPORATION

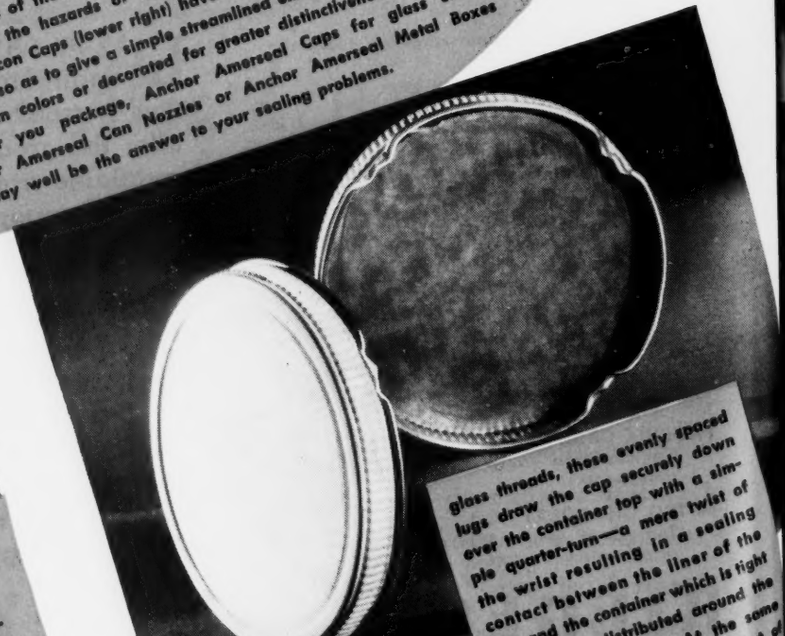
342 Madison Avenue New York, N. Y.

WHY YOU SHOULD SWITCH TO ANCHOR HOCKING CLOSURES and CONTAINERS

LUGS THAT GRIP—Famous Amerseal Caps—made by Anchor—are known the world over. Millions of women will testify to their ease of removal! Packagers, too, know how the scientifically designed lugs of these caps guarantee airtight and moistureproof seals, protect their products against the hazards of time, transportation and climate. Even the smooth, sleek Anchor Beacon Caps (lower right) have the same type lugs—in this case turned under, of course, so as to give a simple streamlined exterior effect. Any of them may be supplied in colors or decorated for greater distinctiveness and attractiveness. Whatever you package, Anchor Amerseal Caps for glass containers, Anchor Amerseal Can Nozzles or Anchor Amerseal Metal Boxes may well be the answer to your sealing problems.



DECORATIONS—Consider the many advantages of a privately decorated Anchor Cap. It can be used in place of a label; to instruct the consumer on the preparation or use of the product; to feature recipes, to cross advertise other products in your line; to display your trade-mark, to dress up and give your package individuality. And to insure the highest quality of lithographing possible, Anchor maintains one of the finest equipped plants in the metal lithographing field.

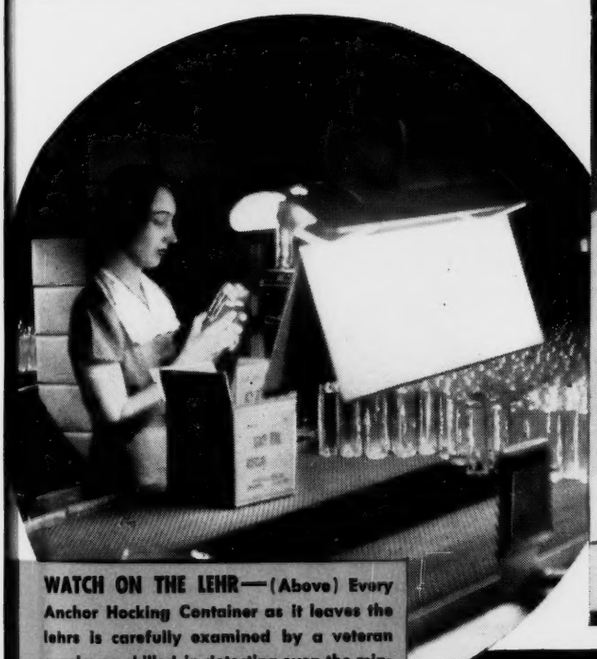


IN THE LOOKING GLASS—An inside-outside view of an Anchor Amerseal Cap which distinctly shows Anchor's unique lug construction. Double notched for extra gripping power, accurately pitched to conform to the glass threads, these evenly spaced lugs draw the cap securely down over the container top with a simple quarter-turn—a mere twist of the wrist resulting in a sealing contact between the liner of the cap and the container which is tight and evenly distributed around the entire circumference. At the same time the few points of contact of the lugs promote easy removal with the least amount of effort.

BETTER BLAKES — (Left) Even such a familiar item as "Standard Blakes", so popular and so practical for many drug and pharmaceutical items, should be selected with an eye to quality. Anchor Hocking is proud of its Blakes, of the brilliant clean amber glass, of their accuracy of finish, of their sturdiness and all around excellence. Available in 27 different sizes, from 1/6 oz. to 32 ozs.

●

SPOON SIZED ROUNDS — (below) What we said of the Blakes above applies equally as well to these Wide Mouthed Rounds (below); high quality glassware and especially adapted to heavy liquids, powders and such where often a spoon or utensil is used for removal. A full range of sizes to choose from, in either amber or crystal, from 1 oz. to 160 ozs.



WATCH ON THE LEHR — (Above) Every Anchor Hocking Container as it leaves the lehrs is carefully examined by a veteran employee skilled in detecting even the minutest defects. Under strong daylight lamps, against a white background and with all sorts of gauges and measuring devices at her side the inspector is the guardian of Anchor Hocking uniformity and dependability . . . assurance of smooth running production in your packing lines.

●

MORE POWER TO SALES — (Right) Sometimes sales need the little extra push that judiciously chosen premiums can give. The items shown here are practical appealing and astonishingly inexpensive...and, we've hundreds of others that might suit even better from your particular merchandising angle. Let one of our experienced premium men discuss your problems with you.

●

ANCHOR HOCKING GLASS CORPORATION, Lancaster, Ohio. **CLOSURE DIVISION:** Long Island City, N.Y., and Toronto, Canada. *Branch offices in all principal cities.*

Molded by Norton Laboratories

SOME few months ago a wide-awake designer noticed that there was no really convenient way for a woman to carry facial cleaning tissues when she was traveling or shopping. So he got busy right away and designed a watch-size container similar to those shown above which hold two dozen or so cleaning pads, fit easily in the purse. But immediately he ran into production difficulties. It seemed his good idea was an impractical one.

Manufacturers are now featuring this large size Durez pad container in combination with the smaller purse size.

The cleaning pads are moistened with a facial astringent . . . so metal cases rusted and corroded. Then plastic cases were tried—but the moisture swelled the base, caused the threads to bind or the covers to break. Several other plastics were tried, all with uniformly discouraging results. Then the molder called on us for a special moisture and corrosion-resistant plastic . . . and after studying the requirements we suggested a standard Durez molding compound which is now performing perfectly—the *only* plastic that could meet all the requirements for the base.

As soon as the trade saw the samples of this container, they appreciated its utility, adopted it enthusiastically. Firms of the calibre of Clark-Millner, Parfait Powder Puff Co., Royal Distributing Co., Hinze-Ambrosia, Inc., and the George W. Button Corp., put them in retail stores under their own brand . . . other manufacturers bought containers from stock molds . . . and in every case they sold like a house afire.

All of which points up this moral: when you are considering a new package or accessory, no matter whether it be a standard or an extremely unusual application, investigate Durez first. General Plastics Inc., 86 Walck Road, North Tonawanda, New York.

The Modern Packaging Material

DUREZ

TIME TO THINK OF YOUR

Christmas Packaging

Our new 1938 designs are knockouts—bright, sparkling, colorful—just what is needed to add punch to the sales appeal of your packages.

We will gladly send sample sheets and suggestions —write us of your problems.

Royal PAPER CORPORATION

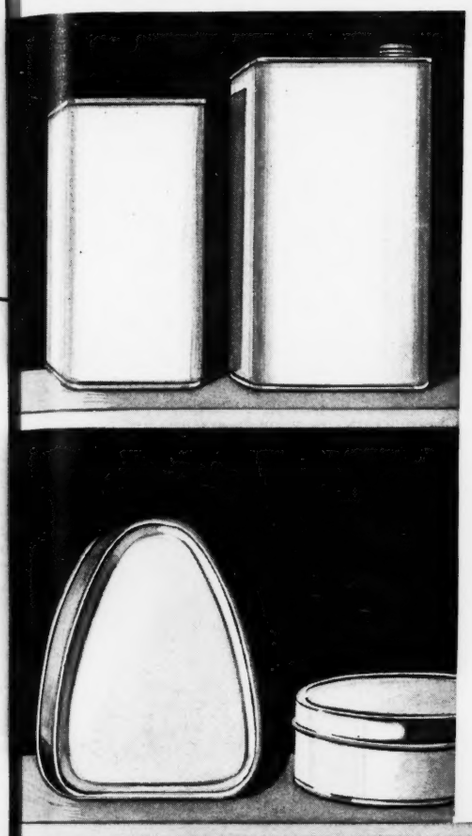
Manufacturers of Decorative Papers

ELEVENTH AVE. AND 25TH STREET, NEW YORK, N. Y.

PRINTED ON PERFECTION BOX COVERING—PATTERN NO. 7-404-B

Containers of **J&L TIN PLATE** have plenty of

Sales Appeal

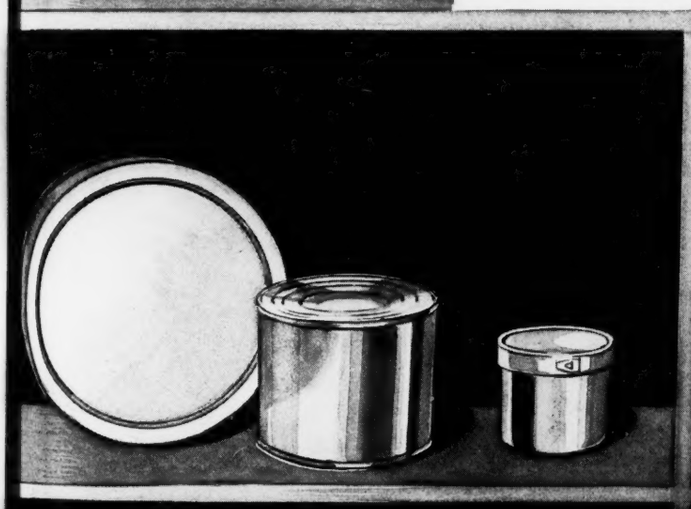


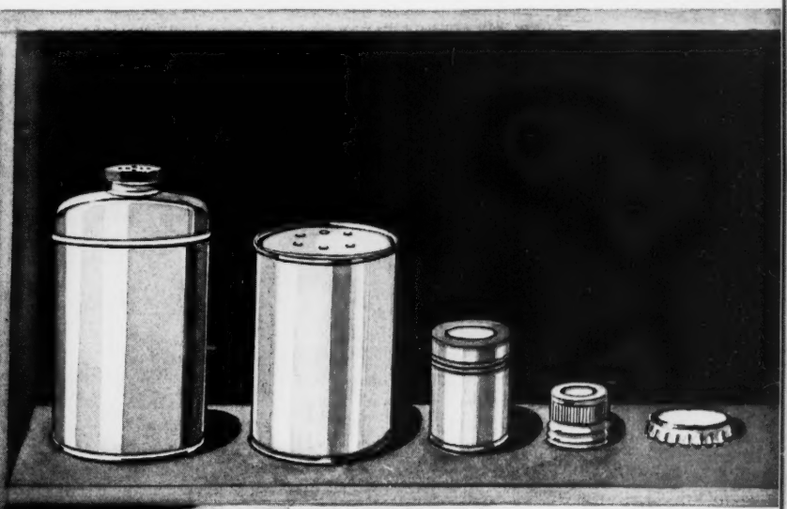
It snaps up lithography . . . and helps to make more sales for you and your customers.

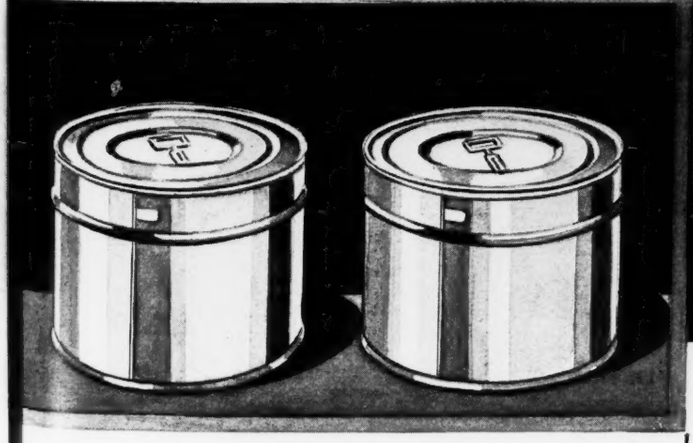
Here is a plus value that helps sell your products . . . that helps keep them the first choice of buyers every time they buy . . . for containers and closures made of J & L Tin Plate have the eye appeal that commands selection, and the quality that reflects the true, clean wholesomeness of your products.

Many firms in the packaging industry specify Jones & Laughlin for their tin plate needs, because they know that only the highest quality steel is used, specially selected and processed to meet their individual requirements. Strict metallurgical control, proper heat treatment, uniform tinning and thorough cleaning guarantee the lasting protection of your products.

In manufacturing operations, the uniformity and workability of J & L Tin Plate give additional savings in time and money. Before you place your next order for container and closure requirements, let us tell you more about the advantages you get from using J & L Tin Plate. Get the package that helps sell your products. Specify J & L Tin Plate.







J&L STEEL

J & L — ALWAYS MAKING FINER CARBON STEELS FOR NEW AND BETTER USES

JALCOLD A cold-reduced special-purpose plate with exceptional ductility for deep-drawing operations. Unusual flatness and unexcelled surface assure faithful reproduction of intricate design and color-lithography. For difficult draws and beautiful designs, use Jalcold.

ONES & LAUGHLIN STEEL CORPORATION

PITTSBURGH, PENNSYLVANIA

NERS OF HIGH QUALITY IRON AND STEEL PRODUCTS SINCE 1850

WARNERCRAFT

THE FINEST WORD IN PACKAGING

Merry Christmas, 1938!

•

Now is the time

•

To start your holiday packaging.

•

WARNERCRAFT

•

Hand made, set-up or folding boxes

•

In sprightly holiday dress

•

Will give quality

•

And merchandising fascination

•

If you begin now

•

To discuss requirements with us.

THE WARNER BROTHERS COMPANY

BRIDGEPORT — CONNECTICUT

200 Madison Ave., New York — AShland 4-1195

• DESIGN • We maintain full time designers skilled in the art of creating and developing modern packages and displays.

INLAND . . . .

The Kraft Standard Bearer For Over 12 Years!

Pioneering the use of sulphate kraft in the manufacture of corrugated containers, Inland has established leadership in its field. This priority of experience is all the more important, in view of the trend to kraft shipping containers.

They are lighter in weight and tougher in body — more economical to pack and ship — neater in appearance — give better protection to products in transit.

Inland engineers, specializing in kraft, have used this high quality material for improved design and construction. They know how to work with it in producing better, stronger containers.

Let an Inland sales engineer give you specific details. His recommendations are reliable, because he speaks from experience. There's no obligation. Write for full information today.

INLAND CONTAINER CORPORATION

★ *Executive Office:* INDIANAPOLIS, INDIANA

Sales Offices: CHICAGO · MILWAUKEE · CINCINNATI
COLUMBUS · MIDDLETOWN, OHIO · LIMA, OHIO · PITTSBURGH

Enough Said!

MOTOR AGE PRODUCTS

AUTOMOTIVE CHEMICAL PRODUCTS + 10541 WEST CHICAGO BLVD. DETROIT, MICH.

March 18th, 1938.

Breskin & Charlton,
425 Fourth Avenue,
New York, N. Y.

Gentlemen:

We surely hope that we are not too late for the packaging catalog as we would hate to break our files.

Will you please send us one immediately, either billed to us or C.O.D. Not being sure that you still have them, we hesitate to buy a money order to enclose. A very hard winter has held the writer back from spending even this small amount before this. However we simply could not keep house without either Modern Packaging or the yearly catalog and are looking forward for the March issue.

Sincerely yours,

Motor Age Products,

by Harry A. Barber

Have You Ordered Your 1938 Copy?

PACKAGING CATALOG

425 FOURTH AVENUE NEW YORK, N. Y.

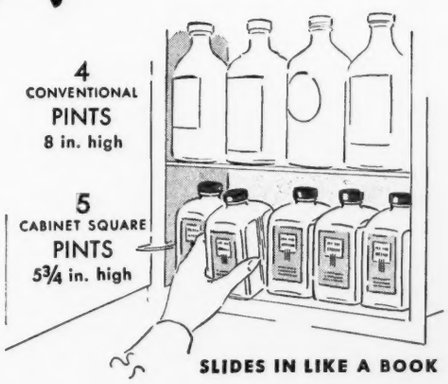
Red—one of nature's primary colors is symbolic of so many things "emotional" that when the eye encounters its fiery hue it is compelled to stop and look...Our attempt here to show its application in package design cannot begin to illustrate its many possibilities. Furthermore, the proper use of color and skill in design is only one feature of Continental's packaging service. Experienced product research is another. In Continental's laboratories experienced specialists are ready to help any manufacturer solve specific problems requiring scientific research...No matter what your problem is, you will find Continental pre-eminently qualified to render expert assistance . . . Consult us freely.

ONE OF A SERIES DEVOTED TO THE USE OF COLOR IN PACKAGING DESIGN. COPYRIGHTED, 1938.

Continental Can Company

NEW YORK · CHICAGO · SAN FRANCISCO · MONTREAL · TORONTO · HAVANA

New SPACE SAVING BOTTLE



—doubles the Capacity of the Medicine Cabinet!

HERE *is* a new idea in packaging—a bottle of brilliant Maryland Blue glass, lovely to look at, yet designed primarily for convenience in the home. The *Cabinet Squares* take less width, less height—fit as compactly as a row of books. With their labels to the front, like books, they are as easy to see and to get at. Particularly if you make a line of related products, which you'd like to see side by side in more consumers' homes, you'll want samples right away. Write for them today. Maryland Glass Corporation, Baltimore, Maryland. New York Representative: 270 Broadway. Pacific Coast Representative: Owens-Illinois Pacific Coast Company, San Francisco.

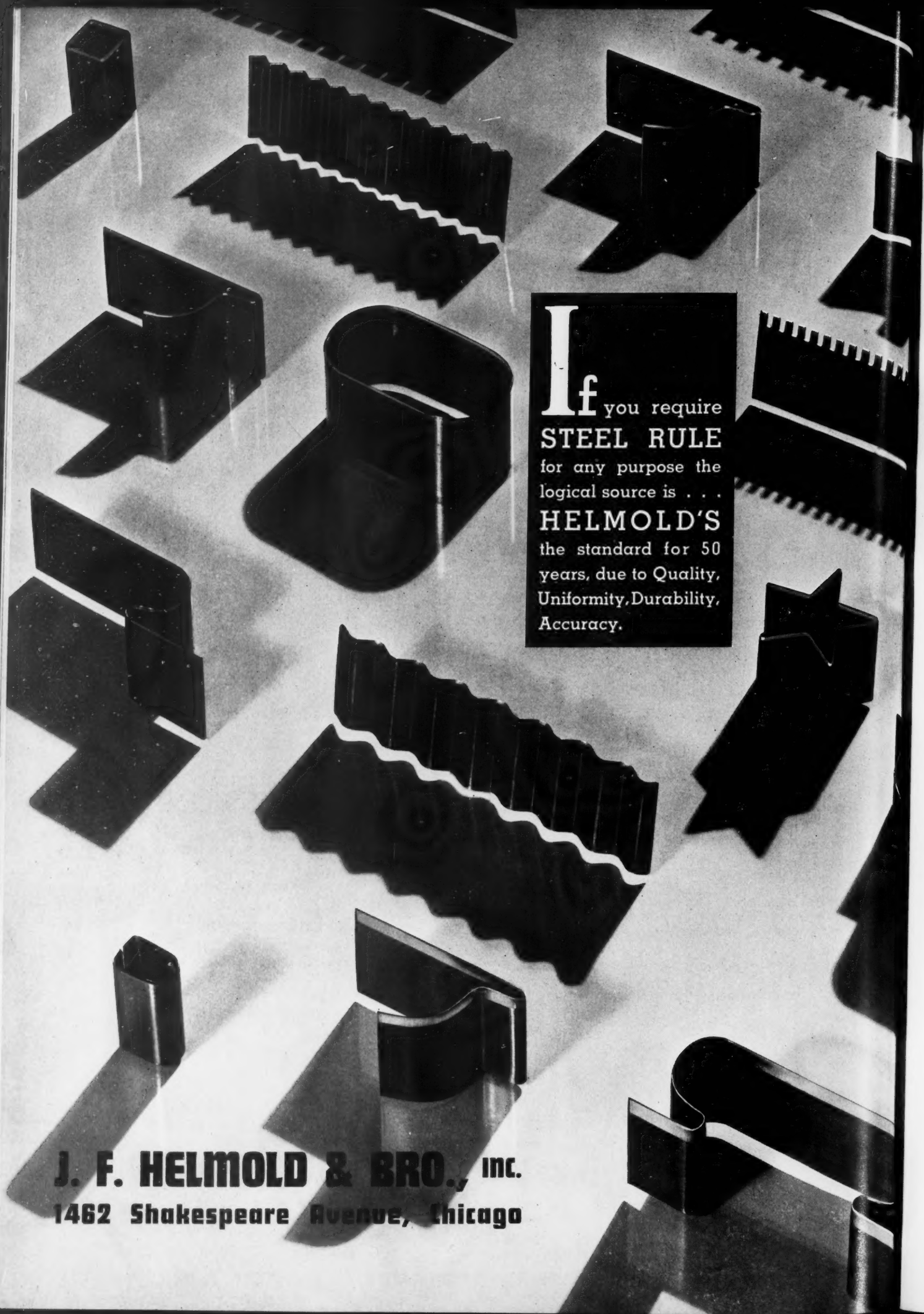
The Cabinet Square

Design Patent No. 109513. Sizes: 1, 2, 2½, 4, 8, 16 and 32 ounces. . . . Standard Continuous Thread Finish, G. C. A. 400. . . . Black double shell caps supplied from stock if desired.

Also in Maryland Flint.

Maryland Blue

BOTTLES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for any purpose the logical source is . . .
HELMOLD'S
the standard for 50 years, due to Quality, Uniformity, Durability, Accuracy.
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That's why a *good* package can be such an important single sales force. It functions at the point of sale where the decisions to buy or not to buy are made.

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There are scores of details that enter into the production of a successful package. Size and kind of carton, type of closure, style of design, number of colors . . . all these must be carefully considered and intelligently combined in the creation of a good sales-stimulating package. But most important of all is the kind of carton board you use in producing your packages.

To be RIGHT your carton must protect your product. It must enhance the beauty of your package design. It must be moderately priced. It must facilitate production and packaging operations. This kind of carton board, plus a good package design, make sales success certain.

Make More Hands Reach Out!

Whether you need a new package for an *old* product, or a new package for a *new* product, be sure it's the kind that tempts buying hands to reach for it. That is the kind of package idea that is awaiting your inquiry. Write today for complete information on Gardner-Richardson special carton boards, and for facts about our package design service.

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LITHWITE—*a smooth, brilliantly white box board for improving the appearance of your carton economically.*

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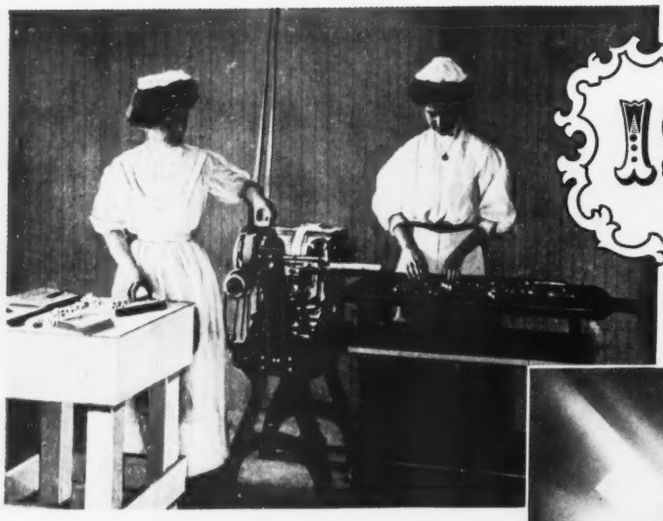

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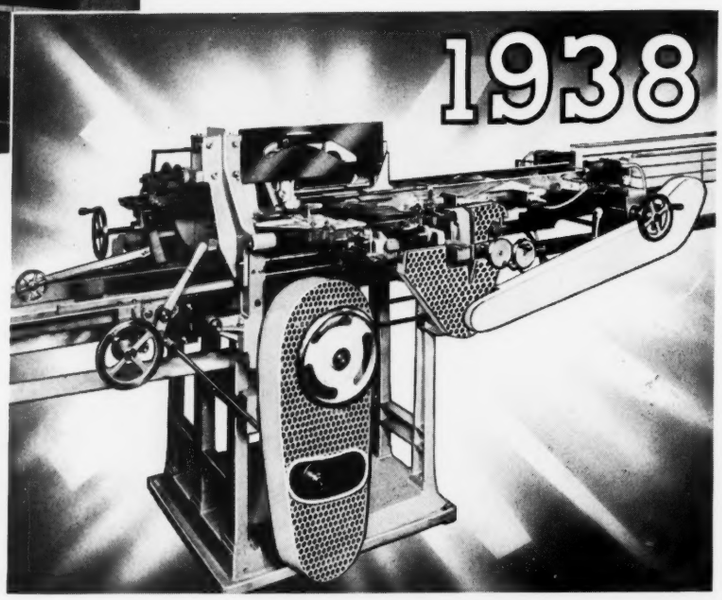

Modern adjustable wrapping machine . . . one of our 78 models.

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Today, with wide experience as a background, we offer a line of machines that is truly outstanding—78 different models covering virtually every industry in which packaged goods are produced.

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Why not find out what 25 years of experience can offer *you?* See if your package can be improved, your costs lowered. Our customers—leading manufacturers in the United States and in 35 foreign countries—consult us regularly for this purpose.

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25th ANNIVERSARY

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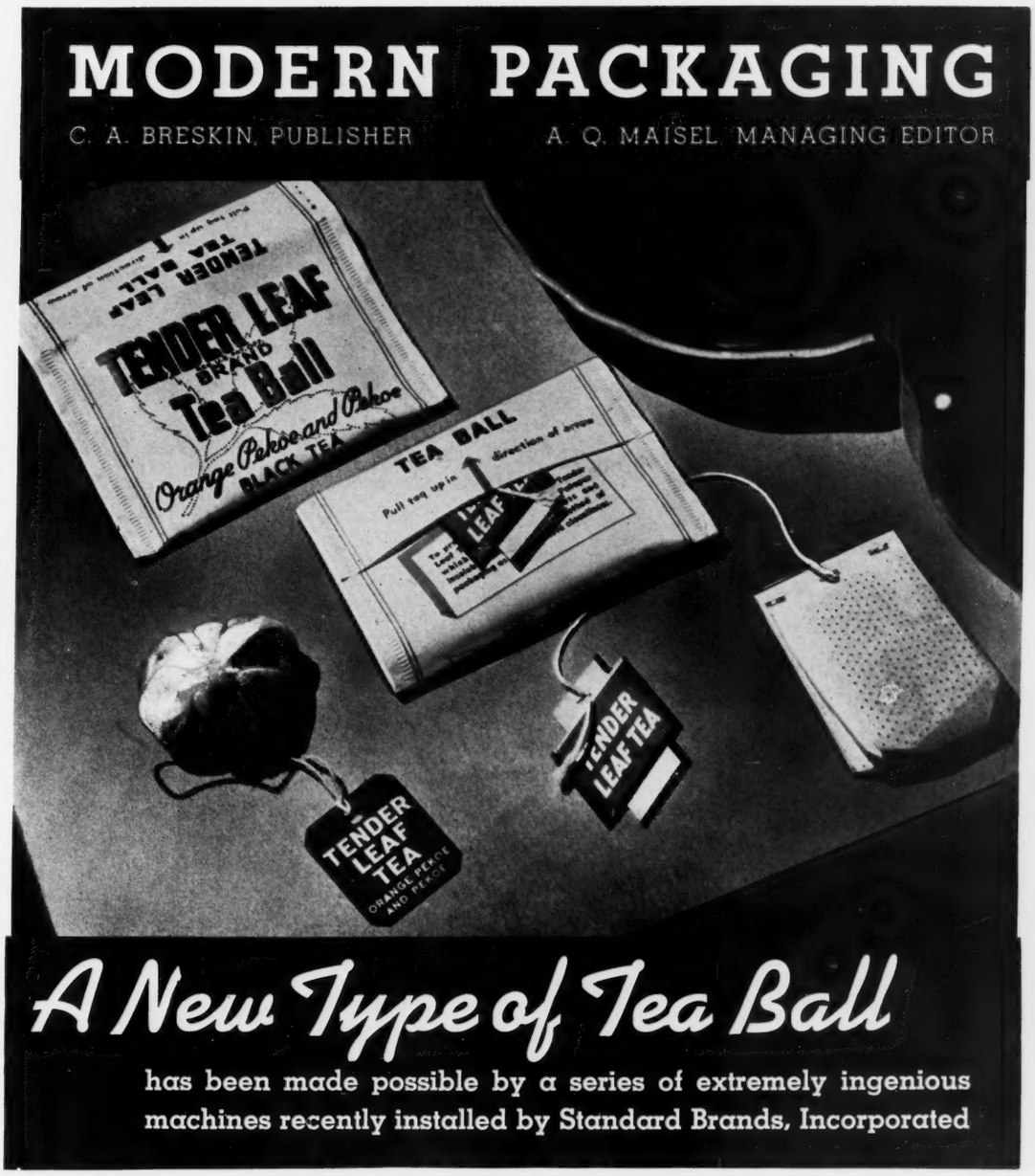
Over a Quarter Billion Packages per day are wrapped on our Machines


MODERN PACKAGING
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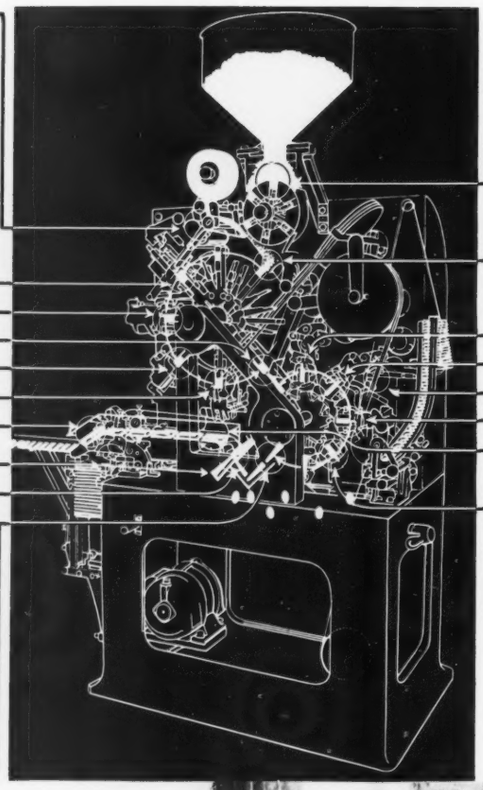
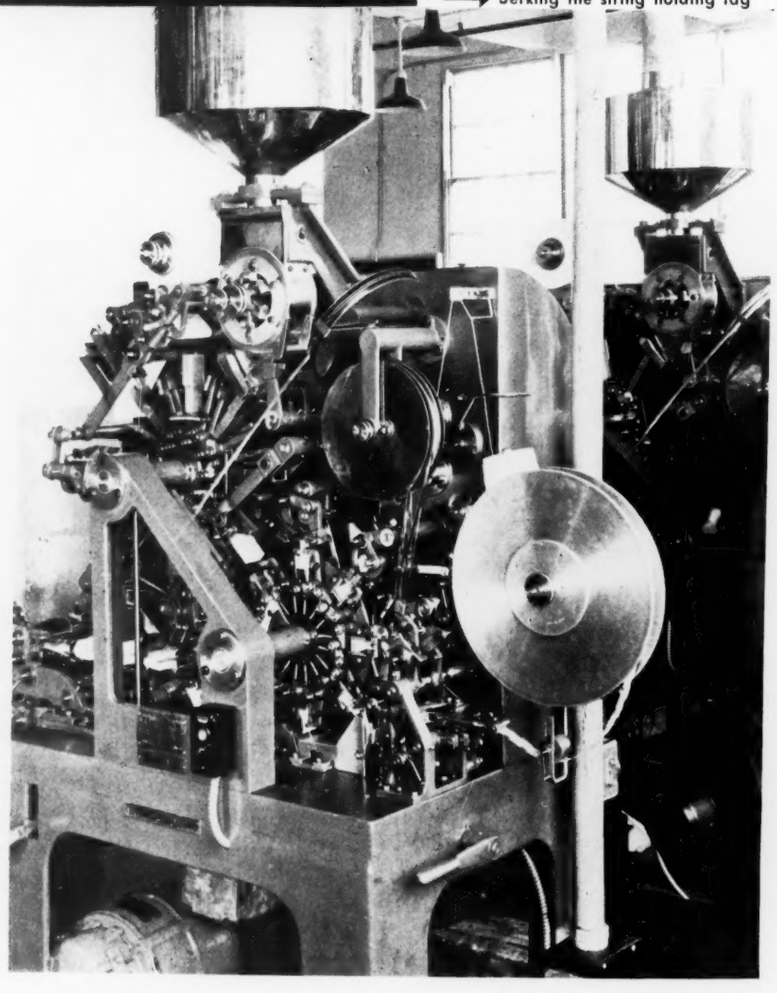
A. Q. MAISEL, MANAGING EDITOR
TENDER LEAF BRAND Tea Ball
Orange Pekoe and Pekoe
BLACK TEA
TEA BALL
TENDER LEAF TEA
ORANGE PEKOE AND PEKOE
TENDER LEAF TEA
A New Type of Tea Ball
has been made possible by a series of extremely ingenious machines recently installed by Standard Brands, Incorporated

IN A FEW SELECTED LOCALITIES LAST MONTH, several thousand Standard Brands dealers began to sell the company's Tender Leaf tea presented in a new package utterly different from the familiar gauze tea ball package which had previously been utilized by Standard Brands as well as by many other tea processors. These dealers were, in effect, conducting a mass test, on a very large scale, of consumer reaction toward a new and improved package and earliest returns, at least, indicate an amazingly successful introduction for the product with re-orders flowing in at a rate which is faster than the temporarily limited production.

No mere surface redesign is involved in the package changeover. The change starts with a basically different form of machine, it includes a basically different type of bag, it continues onward to a basically different manner of packing the bags individually for sanitation and, finally, to an outer package which, while retaining many of the features of the early container, differs in size and shape to accommodate the new improved tea bag.

Before considering the new tea bag, take a glance at the bag it replaces. This familiar gauze sack which has been used throughout the world by the millions was necessarily of an amorphous shape—hence the name "tea ball." Its shape precluded its being economically packed in an individual wrapper and hence such tea balls have traditionally been sold grouped into cartons. These, of course, afforded a large degree of sanitation but they did not provide the individual wrap desired by the Standard Brands organization.


3 Conveying transparent material
4 Cutting off and placing transparent material around the core
5 Preliminary folding of longitudinal edges
9 Filling bag and slipping same off core
6 Final folding of longitudinal edges
7 Folding bottom part
8 Fastening the two longitudinal folds with aluminum staples
19 Delivering finished bag inside protective envelope to delivery table or conveyor band
16 Sucking up blank for protective envelope from the pile
17 Inserting transparent bag into protective envelope
15 Conveying finished bag of transparent material to the wrapping device
Dosing 1
Filling hollow core 2
Folding top part 10
Preliminary perforation of top part preparatory to closing with aluminum wire 11
Bringing up wire for closing top and string for stitching tag 12
Closing top part and stitching tag 13
Conveying wrapped bag to envelope crimping device 18
Cutting off and drawing string across to tag-stitching device 14a
Jerking the string holding tag 14b



1–20. Diagram and photograph show details of the extremely intricate tea bag making machine which measures the tea, forms the bag, fills it, clips it, attaches string and tag, forms the envelope, crimps the envelope, inserts the tag and positions the tag for easy removal.

20

The new container is an actual stapled bag of perforated pure vegetable parchment. Its flat and uniform shape—plus the ingenious machine used to package it—have, in combination, made possible the addition of an outer wrap to insure the product being placed before the consumer without having been touched with human hands. This outer wrap, in the form of a small envelope with crimped side walls, is made of a sulphide stock and printed with special inks which are deodorized during the process by means of special equipment on the press. This removes all possibility of an odor being imparted to the tea by the wrapper material.

Let us turn then to the machines which make this package possible. These are of two types. The first is a perforating machine which receives the vegetable parchment in reels and, with a series of 50 perforating wheels, punches 50 rows of little holes down the entire length of each reel, re-winding as fast as the punching is accomplished. The machine has a rated output of approximately 13,000 yards every eight hours. Several of these units have been installed at the Standard Brands Hoboken plant to meet the parchment requirements of the tea bag making machines.

Each of these perforators is equipped with three suction devices, one of which cleans the rubber covering which underlies the parchment on the main perforating drum and the other two clean the perforated parchment as it leaves the drum and proceeds to the re-winder. This cleaning operation effectively removes all perforating scrap and thus provides a dust-free packet. The perforated parchment proceeds in reels to fully automatic tea bag packaging machines. These machines are described in detail in the series of drawing to be found on the opposite page.

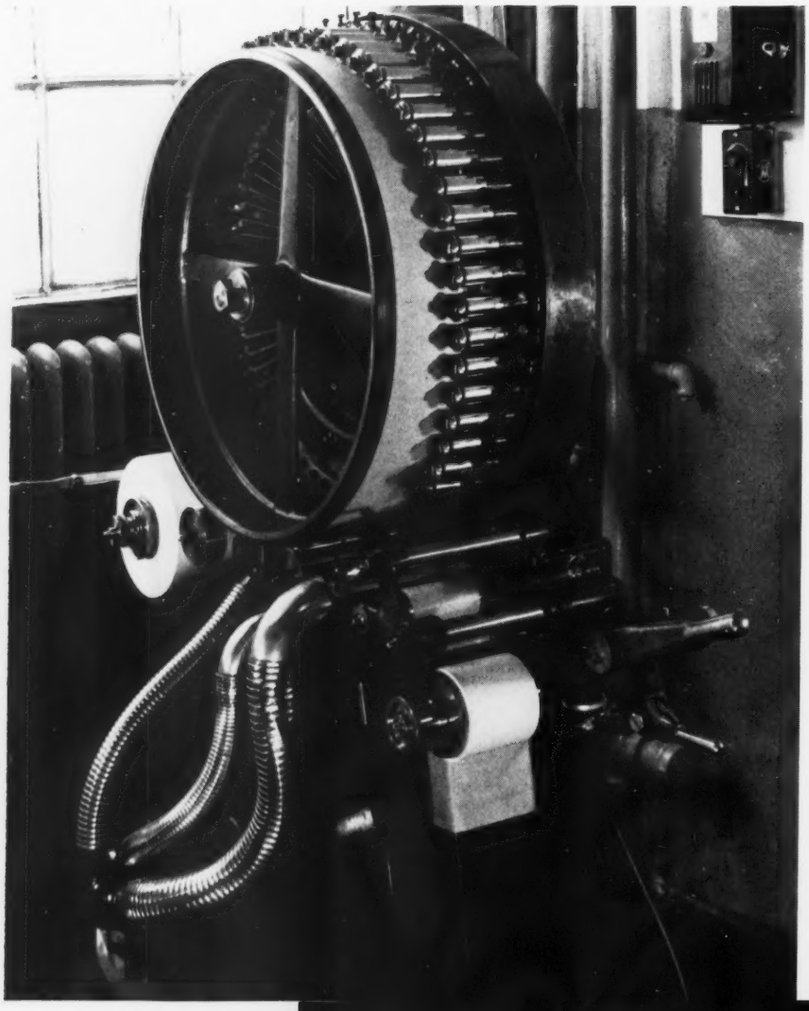
Suffice it to say here that these machines, with a speed of 80 per minute, measure the tea, form the bag, fill tea into bag, staple the bag, attach a tag to the string, form a protective paper envelope, position the tag so that it projects beyond the flap of the envelope, crimp the envelope and deliver the completed containers to the carton filling tables. The labor requirements of the machine consist of one full time attendant who feeds the various supplies required by the machine into the proper receptacles and who is in a position to stop the machine when, for any reason, an interruption in production is desired.

The output of the machine is cartoned—and inspected during cartoning by one or two other female attendants,

21. No major change has been made in the design of Tender Leaf tea cartons except to re-arrange lettering so as to conform with the new sizes made necessary by the change in the inner packages. Since each ball is now individually wrapped, the use of foil and paper inner wraps has been made unnecessary, the packets of tea being inserted directly into the cartons and the cartons, in turn, individually wrapped with cellophane.

21

22



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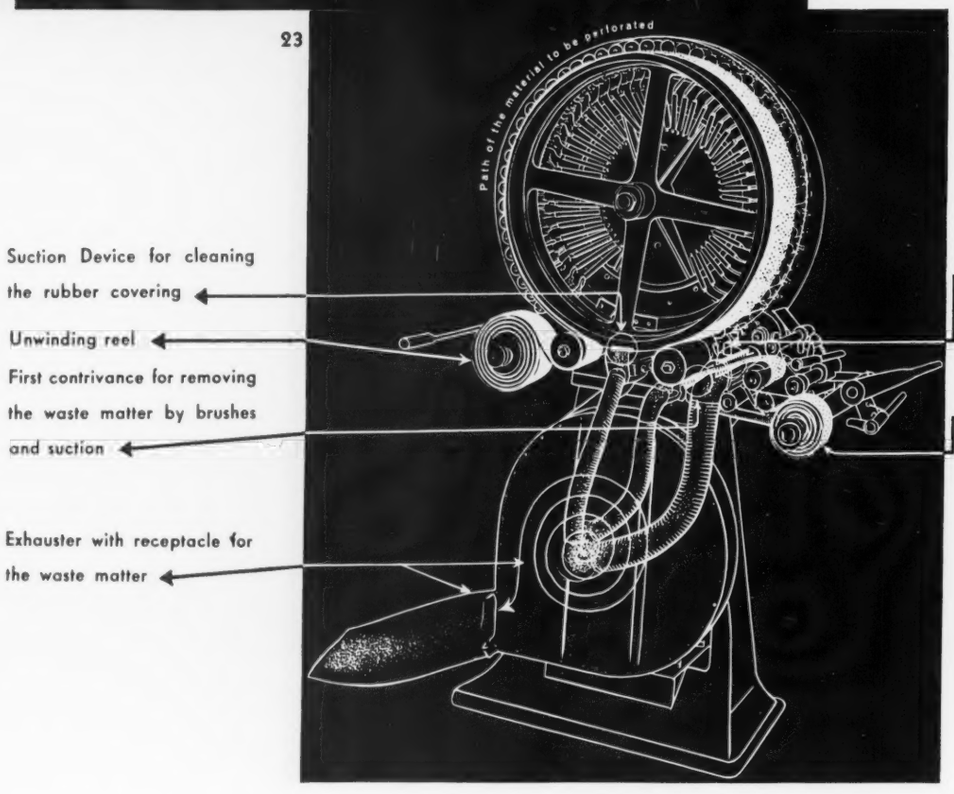
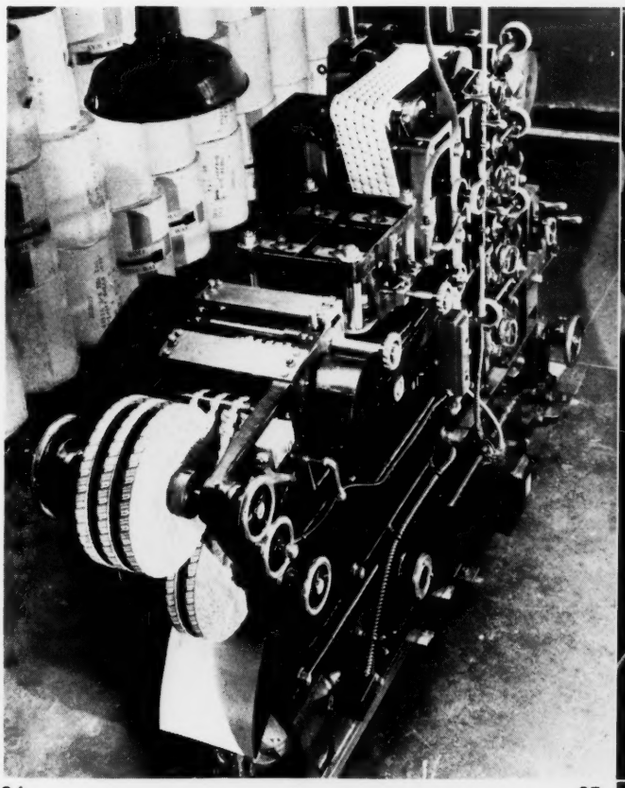

Path of the material to be perforated
Suction Device for cleaning the rubber covering
Unwinding reel
First contrivance for removing the waste matter by brushes and suction
Exhauster with receptacle for the waste matter
Second contrivance for removing the waste matter by brushes and suction
Reel for re-winding the perforated material

22–23. Photograph and diagram of the perforating machine used in manufacturing the new Tender Leaf tea bags. This machine makes 50 rows of perforated holes on the ribbon of pure vegetable parchment which is later formed into the new type tea bag.



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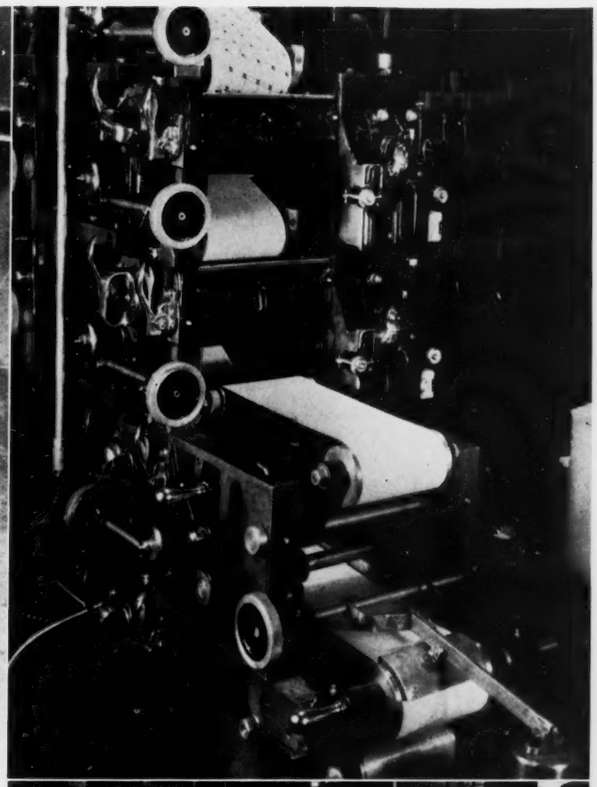
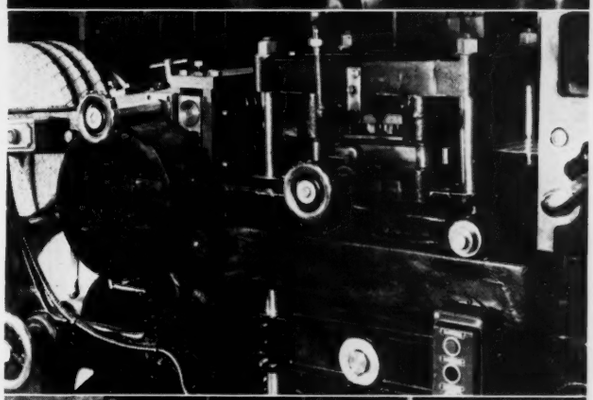


25

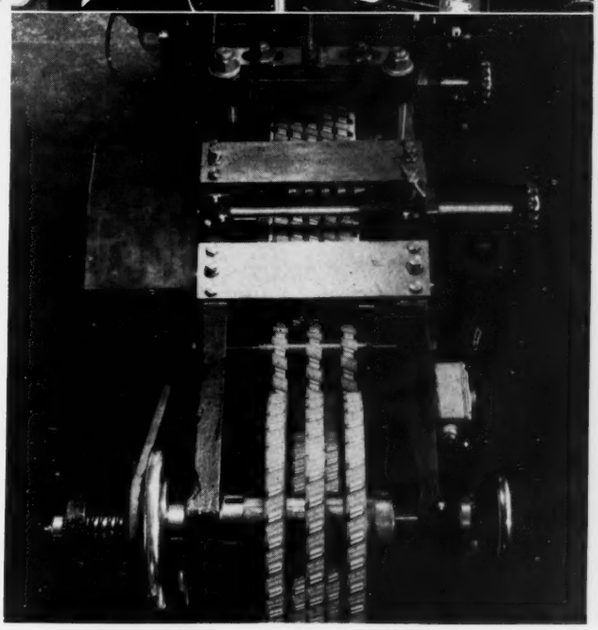
24. The Weiss Speedry machine used in gravure printing and die-cutting 3000 tags per minute. The four gravure units, for printing the tags in two colors on each side, may be seen at the rear of this photograph. The die-cutting unit may be seen at the center of the machine and the slitting and re-winding device in the foreground.



26

25. Close-up of the gravure end of the Standard Brands Speedry press. Four completely enclosed gravure units stand one above the other and the web passes back and forth under and above these, rising toward the top as the printing operation progresses.

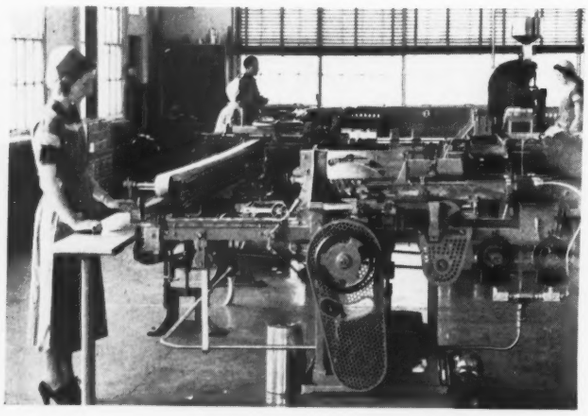
26. Close-up of the die punching unit of the tag printing press. The die press is equipped with a swivel and an eccentric drive which permits it to move with the moving web of paper on its down stroke and to return to original position in time to meet the next portion of the web to be cut.



27

27. Immediately after the die-cutting operation, the now printed and cut web of tags pass through a series of slitters and thence to five re-winding reels. These reels are placed onto the tea bag forming machine, shown on page 24, and the individual tags are cut apart, as they are required, by this latter machine.

depending on the size of carton being packed at the time. From the carton tables, adjacent to the battery of bag making machines, a belt proceeds toward a carton sealing machine and thence to either of two cellophane wrappers, one for the smaller sizes of packages and one for the large display containers. The new packets, of completely different shape than the old, have, of course, required cartons of changed dimensions. These are of three sizes containing, respectively 8, 20, and 100 packets. All are cellophane wrapped.



28. Carton sealing and cellophane wrapping units are designed to take care of the output of the entire battery of tea bag forming machines, one of which may be seen in the upper right background. The operator adjacent to this machine places the packeted bags into previously erected cartons. These proceed, by moving belt, to the carton sealing machine seen in the center background and thence along a compression belt to the cellophane wrapping machine in the immediate foreground.

In conjunction with this installation, another has been made for the manufacture of tea bag tags. Here a gravure printing machine has been installed which produces tags at a rate of 3000 per minute. The machine accepts an unprinted reel of a width sufficient to produce five rolls of tags, prints these on both sides in two colors, die-cuts them without interrupting the continuous motion of the web, slits the web into five parallel ribbons and then re-winds the ribbons onto five separate rolls. These rolls are placed on the tea bag making machine and the final operation of cutting apart each tag from its mate is performed during the process of making the bag. These tags are die-cut into parallelogram shape with four corner cutouts. The tag hole around which the string was tied on the old type of package has been replaced on the new package by a small staple which holds the string and bag together.

The tag making machine utilizes extremely volatile inks which are applied to the gravure rolls under conditions which completely isolates them from contact with the outside air, thus removing the fire hazard usually present when such inks are exposed.

Of particular interest is the die-cutting press incorporated in this machine which is equipped with an eccentric drive so that it moves at the same rate as the paper (*Continued on page 92*)

29. The Tender Leaf package for loose tea has likewise been redesigned. The old package consisted of a heavy foil wrap and a band type label. The new package utilizes a decorated foil carton with an inner lining of laminated glassine. This lining, consisting of two layers of glassine with an inner layer or bond of wax, provides extremely high moisture resistance and hence insures flavor retention. The layer itself has no flavor or odor to contaminate or impart a taste to the tea nor will it absorb the tea oils. Its white appearance likewise adds a note of high attractiveness and an air of sanitation to the package. The cartons are printed in three colors—green, white and black being used for the green tea and red, white and black for the orange pekoe and pekoe tea.

GIVE YOUR BOTTLES A CHANCE

by Frazier Smith[*]

THE PURPOSE OF THIS ARTICLE IS TO CONSIDER the limitations imposed on the form and design of the glass container by the mechanical operations through which it passes in the course of becoming a part of the finished package. Many factors and characteristics of production machinery influence and limit proper container design to an extent which is, perhaps, not fully realized. A thorough understanding of such problems is essential for both the glass designer and the packer in the selection of a container which will lend itself to ideal behavior on the production line.

The mechanical operations usually consist of filling, capping, labeling and cartoning, in that order. A mechanical cleaning, using compressed air or water, sometimes precedes the filling operation. Placing the container on the conveyor at the start of the operation and fitting the finished package in its shipping case are usually, though not always, done by hand.

The bottle or jar which is easily upset on the shelf or table is doubly certain to cause trouble on a moving conveyor. Shapes tapering to a small bottom (sketch C) are top-heavy and tend to push each other over when a series of them are propelled by pressure of those which follow. On the other hand, a shape tapering from small top to large base (sketch B) often presents a problem in breakage, due to the single point of contact with the container next in line.

The jars or bottles usually move along the conveyor in end-to-end position and depend on the contact of the sides with the guide rails to keep them properly aligned. Oval shapes with narrow ends (sketch D) tend to turn and wedge together. The best shapes, then, for fast and economical conveyance are those with round, square, rectangular, or relatively flat-faced oval plans (in that order of preference) with straight vertical sides.

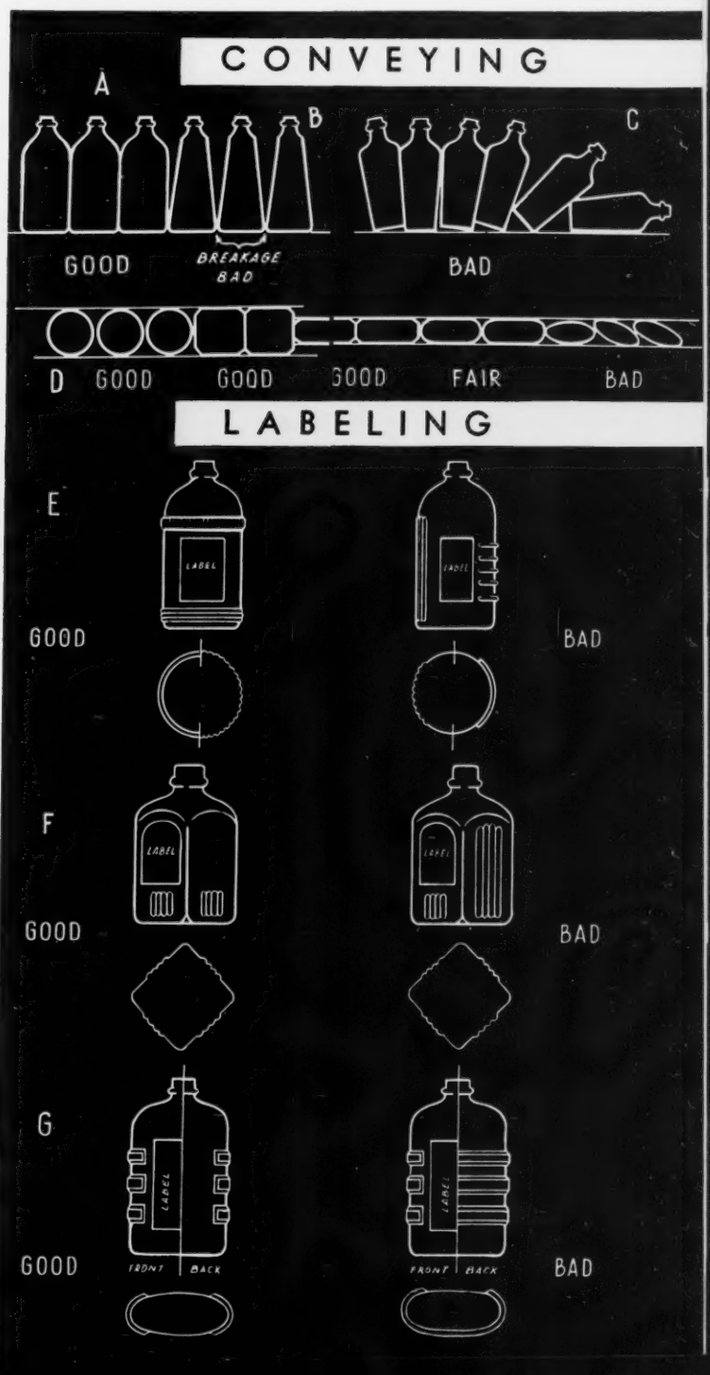
The manual placing of the container on the conveyor presents a problem relating to the labeling operation. The design should be such as to present no option to the operator or no room for a choice as to which way the containers should be placed. A serious detriment to efficient operation exists where the operator must face each container in a certain way.

Here the ideal is a round shape, either undecorated or with the ornament running horizontally above or below the label space. Next best is the square with all four sides equally suitable for labeling (sketches E, F and G).

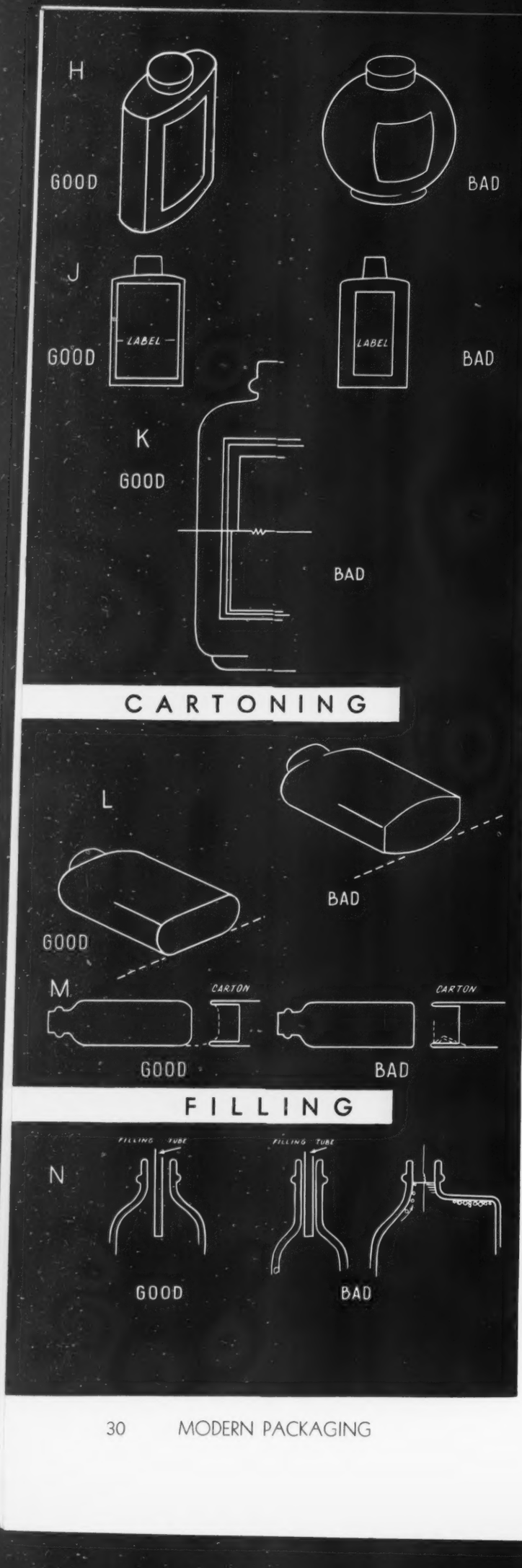
Almost as satisfactory is the rectangle or oval with decoration either on the ends or so placed that it will not interfere with the labeling of either side (sketch H).

The worst possible condition from this point of view is one which requires spotting a label on a round jar (sketch K). Almost equally poor is the square or rectangular plan on which only one face is designed to accommodate the label.

Fast and efficient filling depends on two factors. First, a finish and neck, if any, of sufficiently large opening to permit the admission of the filling tube. Variations in the inside dimensions of blown glass containers are un-



[*] Department of Design, Hazel-Atlas Glass Co.



avoidable, but proper design will help keep these variations within workable tolerances. Planning the finish of sufficient size and avoiding long necks, with their tendency toward what is technically known as "choking," will eliminate trouble at this stage (sketch N).

The second and minor consideration during the filling operation concerns the releasing of trapped air bubbles. Smooth, rounded shoulders, with no sharp angles or horizontal areas, will permit air to rise rapidly and pass away through the mouth of the container.

The application of the closure presents fewer problems. Some types of closures require the observation of certain conditions in order to provide space for the capping chuck to do its work. These conditions, however, are well known and are taken care of as a matter of course.

The labeling operation may be quite involved and considerable freedom from limitation may be obtained due to the variety of equipment obtainable. There are, however, certain general rules usually effective. Assuming that the container reaches the labeler with the proper face exposed, the factors influencing fast, efficient labeling are as follows:

1. The area to be labeled should be smooth and even, whether curved or flat. Sunken sides are most likely to occur on flat surfaces and a slight arch on any large glass area will tend to correct this condition.

2. The label area must curve in only one direction. The violation of this principle results in an area resembling a segment of the surface of a sphere and few labels are sufficiently pliable to conform to such a shape.

3. If the label is to occupy a panel, either raised or depressed, or its position is to be limited by any decoration, it is well to leave a fair margin of clear area to allow for minor spotting inaccuracies.

4. Labels should never be bent around sharp corners nor should they be allowed to run too close to the outer limits of the space.

Placing the filled, capped and labeled container in a carton (frequently with some advertising matter) is sometimes done by hand, but assuming a complete mechanical set-up, there are several points worth noting. The container is often slid into the carton in a horizontal position, bottom first. A shape providing a flat area to slide on and to prevent rocking is often desirable. If the container is round, it may easily be guided by a simple groove and will cause no trouble. A good-sized radius on the container base may help it slide smoothly over the carton edge (sketches L and M).

* * *

This is the third of a series of articles intended to aid the packager in planning his package units so as to provide for greatest convenience in production operations and to permit of the greatest machine efficiency. Earlier articles included "Give Your Labels a Chance," by C. H. Lambelet, which appeared in the February 1938 issue of MODERN PACKAGING and "Give Your Wrapping Machine a Chance," by George A. Mohlman, which appeared in the May 1938 issue. Additional articles in this series will be published from time to time.

A PORTFOLIO OF MACHINE CASE HISTORIES

On the following pages will be found a series of detailed studies of machinery installations. Some are notable because they have solved hitherto insolvable problems. Others have provided cost reductions far beyond anything that could have been secured even a few years ago. Each story is significant enough in itself as an example of the progress which has been made in the invention and in the utilization of packaging machinery.

Yet when we consider the significance of these case histories as a group, we find that here, for once, the sum of the whole *is* greater than its parts. For this portfolio demonstrates conclusively the fact that no packager, large or small, can any longer afford to ignore the progress recently made by machinery manufacturers. No packager, large or small, can profitably continue to tolerate obsolete—or even obsolescent—equipment in his plant. The penalties, in the form of high production costs and poorer packaging, are far too great.

In speaking of machine efficiency, it is important, however, to remember that all efficiency does not lie exclusively with the automatic, high speed, miraculously ingenious machines. Many simple and many inexpensive devices have been developed which very efficiently meet the needs of the smaller manufacturer, or the manufacturer whose requirements for a particular packaging operation are either limited or intermittent. The man who looks for savings and for better packages will find them through better packaging machinery, whether his production be gigantic and his distribution nationwide or whether he operates on a far smaller scale and with a far more limited economic horizon.

- The Case of the AUTOMATIC ELEVATOR
- The Case of the WHOLESALE GROCER
- The Case of the MACARONI PACKERS
- The Case of the AUTOMATIC CANTEEN CO.
- The Case of the THINKING TUBE FILLER
- The Case of the INVERTED CARTONS
- The Case of the LITTLE LIVER PILLS
- The Case of the THIRTEEN BAG SEALERS
- The Case of the DOUBLE-FACED BOTTLE

The modern push bar elevator is equipped with an automatic loading station at its base and an automatic discharge at its top, thus eliminating the loading attendant entirely and ending the necessity for portability.

An early type of inclined elevator which required the services of two operators, one to load and the other to unload. Both photos courtesy Standard Conveyor Co.

THE CASE OF THE AUTOMATIC ELEVATOR

Small inclined elevators are fairly common equipment wherever case stacking is necessary, as in the storage rooms of brewery warehouses. A type formerly used consisted of two separate strands of chain with individual pusher dogs. The two strands were here operated from a single drive located at the top of the portable unit and required manual attention at both ends. At the base of the machine, an operator was necessary to feed the cases onto the machine and to make certain that contact was effected with the pusher dogs. A second attendant was required at the top of the machine to both receive the cases and to remove them.

In a number of breweries, however, this type of equipment has been replaced by a new and improved push bar elevator using two strands of roller chain connected by revolving pusher bars. An automatic loading station at the bottom of such a unit feeds one case just ahead of each push bar. At the discharge end, at the top of the unit, each case is automatically fed to a belt conveyor which proceeds along the length of the storage area and thus permits removal of the cases at any desired point.

The use of a belt conveyor in conjunction with the elevator eliminates a need for portability and thus makes possible automatic operation at the bottom end.

The new type elevator is so constructed as to provide adequate guards and coverings for the top strands of the roller chain. The return strands are likewise carried in angle tracks. The guards of the top strands likewise serve the function of guide-rails for the rising cases and thus prevent cases from shifting toward either side of the conveyor and coming into direct contact with the chains.

THE CASE OF THE WHOLESALE GROCER

A wholesale grocer in the Ohio Valley has changed over to staple-closed coffee bags and has effected, it is claimed, four specific savings thereby. The new bags, plus the staples used in sealing them, cost him 79¢ per thousand less than those formerly used. Secondly, a saving of $20 per month is claimed on the cost of maintaining the present equipment as compared with that of maintaining the equipment previously used. Third, a 23 per cent saving in cost of packing, exclusive of the lowered cost of materials, was reported. This is ascribed to the increased production resulting from the new method with no increase in working hours. Finally, a saving of 18 per cent in packing time was reported, due to the fact that the bags go through the packing department at a much faster speed. This saving in packing time is particularly important in the case of coffee orders, where rush delivery after roasting is a vital factor.

The equipment used consists of a group of standard fasteners driven by electro magnet and operated by foot button or by a touch control which automatically drives the staple when the bag is placed in the position for sealing. This equipment leaves the operator's hands free to handle the bags and thus permits the increase in output. It is further reported that operating fatigue is largely eliminated and that the sores and callouses which might result from the continuous operation of hand machines have not been present among the operators of these electro magnetic fasteners.

The machines are mounted on specially built standards of just the right height so that the top of the bag slides over the sealing blade when the bag itself rests near the level of the bench. The units are easily portable and may be moved from place to place in the department and used where operation will be most efficient. Adjustable legs on the stand are provided to permit raising or lowering the machines to accommodate either 1- or 3-lb. bags and vacuum cups on the legs themselves are used to prevent the machines from vibrating or moving on the table.

It is interesting to note that an alternative which might have been considered in this instance was the motor driven type of sealing equipment manufactured by the same firm. It was found, however, that the relatively inexpensive electro magnetic fasteners would prove entirely adequate and satisfactory for the particular type of work which was contemplated.

Portable electro magnetic stapling units are here shown sealing coffee bags. Photo courtesy Bostitch, Inc.

Two of a group of more than a dozen macaroni cartoning machines to be found in the plant of the John B. Canepa Co., Chicago. Photo courtesy F. B. Redington Co.

THE CASE OF THE MACARONI PACKERS

Macaroni is among the most difficult of products to package. Of long and inconvenient shapes, the product is also extremely brittle and therefore must be carefully handled during every packaging step. For this reason, until recent years, packaging was done by hand.

Two girls would work as a team. The first would be supplied with a large tray or box of macaroni, all cut and ready for packaging. She would weigh out a pound of macaroni and place it next to her, on a table, convenient for the second girl. This operator would, in turn, take a cut sheet of dry wax paper, wrap it around the pound of macaroni, form up a carton and insert the wrapped goods into the carton. Very often she turned the flaps of the carton, though, on occasion, the flaps would be turned and glued with a semi-automatic gluing device by a third operator handling the output of several teams.

Under such conditions, a reasonable output per girl, per day, would be 1200 packages, or 2400 packages for the team of two girls. Such production, however, involved a very substantial breakage of the product and for a number of other reasons presented undesirable and unfavorable aspects.

This process has been partially mechanized in the plant of the John B. Canepa Co. of Chicago, through the use of a specialized type of cartoning machine developed by the F. B. Redington Co. At the extreme left hand end of these machines, a sheet of paper is cut from a roll and is automatically placed in a pocket of the intake conveyor. As many as seven girls are stationed alongside of this intake conveyor, at tables running at right angles to the line of the machine. These girls weigh out and place the proper amount of macaroni into the pockets of the conveyor—pockets previously lined with waxed paper. The machine then automatically wraps the paper around the goods, feeds a carton from a magazine, forms it, inserts the wrapped goods and closes the carton by double gluing the end flaps.

The number of operators required on such machines varies from a maximum of seven to a minimum of four, depending on the types of goods being handled, since very long, crooked sticks are much more difficult to handle than the straight sticks of 10 to 12 in. in length.

The machines produce as high as 20,000 and even more packages per day and thus the output per operator, on a seven-girl scale, equals almost 3000 packages per day or approximately 250 per cent that of a hand operator.

A unit of this sort, of course, is of a very specialized nature, designed to meet the peculiar requirements of a single industry. This very fact is indicative of the possibilities for packaging engineers to solve hitherto unsolved packaging problems by the adaptation of standard machines or standardized machine principles in ways which meet the specialized needs of the individual user.

It is also important to note that in this case, as in many another instance, the package machinery engineer has triumphed, in part at least, over material handling problems which only a few years ago would have been thought of as of such a nature as to definitely preclude the possibility of using mechanical devices.

THE CASE OF THE AUTOMATIC CANTEEN CO.

This Chicago concern for many years weighed and filled its products by hand. Confronted by mounting labor costs and by the needs of an enlarging business, its executives decided to take steps to increase production without an equal increase in personnel and at the same time to lower the packaging costs of the company to a practical minimum.

To this end, two high speed weighing and filling machines were installed to replace all hand operations except the closing of bags and cartons. The number of operators was maintained at a constant level. But the production increased to slightly over 300 per cent. Packaging cost per case dropped to precisely one-third. Within two months' running time, the machines were found to be paying for themselves.

Unbelievable? Here are the facts.

Before: All hand work. Weighing and filling bags and cartons with candies, nuts, etc., and closing same.

Six operators produced 80 cases per day.

Labor cost—$14.40 per day.

Labor cost per case—18¢

After: Machine weighing and filling. Hand closing.

Six operators produced 250 cases per day.

Labor cost remained static—$14.40 per day.

Maintenance, depreciation, interest on investment—70¢ per day.

Total packaging cost—$15.10 per day.

Cost per case—6¢

Total saving—12¢ per case or $30 per day.

With a total cost for the two weighing and filling units of $1500, this $30 per day saving permitted the amortization of the machines in 60 working days.

Before: Six operators, working in two groups, were required to fill, check-weigh and close 80 cases of candies per day at the Automatic Canteen Co. plant.

After: The installation of two Triangle high speed filling machines permitted the same operators to more than treble their daily production. Constant check weighing was eliminated, cost dropped to one-third. Photos courtesy Triangle Package Machinery Co.

One of the four Colton fully automatic tube filling machines which have replaced partially hand operated machines at the plant of the Bristol-Myers Co. This unit lifts four empty tubes from the boxes, places them on the line, straightens them with electric eyes, fills them and effects closure. The fast working operator of yore has now become an attendant. All photos courtesy of Bristol-Myers Co.

Not discarded are older filling machines, this one being used to fill a smaller, less frequently demanded size of Ipana Tooth Paste. When production is limited, automatic equipment is not always justified.

Another semi-obsolete machine has been transferred to this sample filling job, packing individual doses of Sal Hepatica.

THE CASE OF THE THINKING TUBE FILLER

Semi-automatic tube filling machines of highly ingenious design have been in use for very many years. Yet the recent development of fully automatic machines has served to make many an advanced model semi-automatic tube filler obsolescent for products requiring a consistently large volume of production.

Thus at the Bristol-Myers Co. the early semi-automatic machines of the Arthur Colton Co. have been replaced, on the Ipana Tooth Paste lines, by four fully automatic Colton machines which deliver 120 to 128 finished tubes a minute, as compared with the 45 tubes per minute processed on the earlier models.

These machines are controlled by an attendant rather than an operator. Cartons of empty tubes are placed on a conveyor belt leading toward the filling machine and the tubes are automatically removed from these cartons, four at a time, by an ingenious device which places them upon the machine carrier. The tubes next pass before a battery of four electric eyes which turn them until the printed matter has been properly positioned. Next they proceed under a filling block, where this operation is likewise carried on automatically, and thence to the closure section of the machine. Closure is effected by a turning over of the end of the tube and clamping it under considerable pressure. Finally, the machine lifts the tubes onto an endless belt, which starts them onto the cartoning line.

The Bristol-Myers Co. reports a saving in costs resultant from the increased delivery of the new machines.

The old machines, however, have not outlived their usefulness. Transferred to another line, they now are used to produce the 25¢ Ipana tubes and for the filling of single dose, sample Sal Hepatica tubes. The 25¢ Ipana tube represents a new size and volume has not yet warranted the speed of fully automatic equipment. In the case of the individual dose Sal Hepatica tubes, the intermittent nature of sample production likewise justifies the continued use of otherwise obsolete equipment.

THE CASE OF THE INVERTED CARTONS

In the Nashua Mills of the Nashua Manufacturing Company you will find a case-packing line for the packing and shipping of blankets, consisting of a number of lengths of roller- and belt-and roller-conveyors, a scale, and a sealing machine.

Nothing unusual about that you might say.

But it so happens that this is the line which is used in weighing and sealing outgoing cartons that have been repacked with mixed assortments of blankets. Occasionally, such a mixed assortment will not quite fill a carton. In such cases the unsupported inner flaps will sag and when the carton passes through the sealing machine an insufficient surface will be presented for gluing.

All of which explains the presence of a strange little machine which looks like nothing so much as a tumbling barrel of the type to be found in amusement parks. And a tumbling barrel it is—a so-called rollover machine. Its function is to turn the carton over at the behest of the scale operator and thus to convert the top of the carton into a bottom which may be sealed without mechanical difficulty on the sealing machine down the line.

The use of this rollover device likewise permits the mill to run a large variety of carton sizes, for assorted orders, without adjustment of the sealing machine. A sealing machine of this type requires a change in adjustment for each change in vertical dimension in sealing the top of the carton. By inverting all cartons and sealing what is then the bottom, height of carton need not be taken into consideration.

In operation the rollover unit performs in the following manner. The attendant at the scale weighs a filled carton, fastens on the necessary tickets, pushes it into the rollover device and touches a push-button starter located at hand's reach. The rollover rotates a half turn and stops automatically.

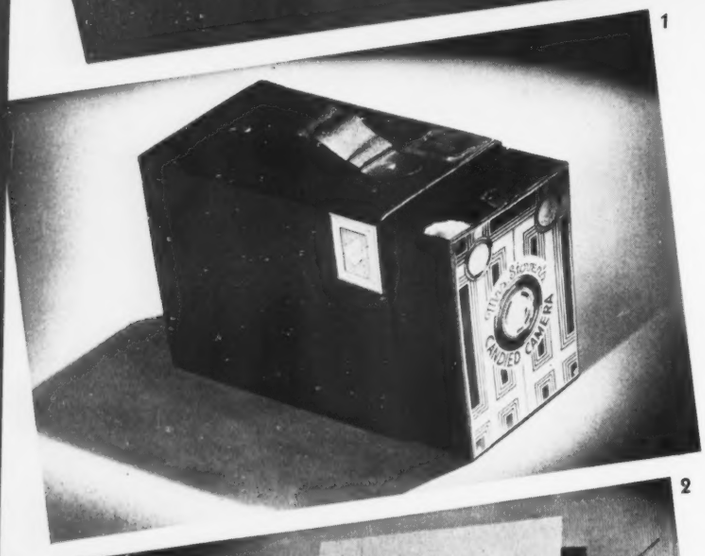
The operator, having weighed and ticketed another carton, slides that one into the machine and thereby ejects the inverted one. The rollover device is capable of repeating this operation approximately five times per minute, assuming that the operator can weigh and ticket that fast. The machine requires no further attention beyond that described above. Limit switches protect against starting should a carton fail to clear connecting roller conveyors at either end.

A simple idea indeed, yet one which ingeniously solves the sort of adjustment problem which causes many manufacturers to despair of securing a mechanical solution.

Belt and roller conveyors and rollover unit manufactured by Mathews Conveyer Co. (*Continued on page 54*)

Reading from left foreground rearward, roller conveyor leading to scale, rollover device, belt and roller conveyor raising filled cartons to sealing unit and, in rear, sealing machine. Note the push-button control located at the left hand side of the near conveyor. Photo courtesy Mathews Conveyer Co.

PACKAGING PAGEANT



1

1. Current with the trend of candid camera hobbyists, Mrs. Stover's Bungalow Candies organization has developed a "candied" camera package which simulates a box-type kodak. The box is covered with an imitation leather paper with foil labels designed to represent the sights of a real camera. Labels and paper supplied by the Deline Manufacturing Co.

2

2. The new F. W. Wakefield Company's Commodore lighting fixture, claimed to be the world's largest translucent reflector and the largest single unit ever molded of plastics, required a high degree of protection in shipment. For convenience and safety, each Commodore unit is factory packaged in a corrugated shipping box specially engineered to absorb the strains and jolts of traveling. The reflector fits into a die-cut hole which snugly holds the unit firmly in place within the container. Corrugated shipping box by The Hinde & Dauch Paper Co.

3

3. A nail make-up kit, designed for the dressing table, is offered by the Jean Norris Laboratories. Suggestive of the Orient in design, a color combination of red and gold, embossed on white moire, for both the round box with its padded top and the panel labels on the individual bottles heightens the Oriental motif. The bottles are topped with red Bakelite caps and are fitted into a hand-turned lacquered wood base. Carton and labels manufactured by the Standard Paper Box Co. Glass bottles by Swindell Brothers, Inc., and Bakelite caps by Standard Cap Co.

4. With a change in package, the Cranberry Canners, Inc., report a 328 per cent increase in sales during April over that period a year ago for their Ocean Spray Cranberry Juice Cocktail. The bottle is designed to fit conveniently into refrigerator compartments. Eye-appeal is achieved by the use of a small label which allows a major portion of the contents to be revealed. The faceted bottle reflects light and further enchances the appeal of the product. Bottle by Ball Brothers Co. Caps supplied by the Crown Cork & Seal Co.

4

5. Sondra cold cream, a new product placed upon the market by the Mifflin Chemical Co., maintains simplicity as its packaging keynote. The paper label simulates natural linen in color and texture and is decorated with a spot design printed in rose color. The Armstrong metal jar closure repeats the rose shade to make for an harmonious ensemble. The trade name and a description of the product, arranged in triangular pattern, is lithographed on the closure top. Jar by the Hazel-Atlas Glass Co. Label by the Birnbaum-Jackson Co.

5 6

6. Modern in design and appearance, the new box adopted by the American Screw Co. is practical and pleasing to the eye. Identification of the contents in each box is achieved by a paper color and ink color system, i.e., green paper, steel; yellow paper, brass, etc., and black ink, flat-head screws; red, round-head screws; blue, oval-head, etc. In addition, large block letters show screw length and wire size and type of screw on the top of the box lid. The side panels carry a message on new Plus screws on one side and a complete listing of the company's products on the other. Package designed by Harry Mayoh of the American Screw Co. Box manufactured by Green Brothers, Inc., and labels supplied by the Rhode Island Label Works.

7

7. A Canadian firm, C. J. Grenier & Co., set a new example for the packaging of hosiery through the utilization of a photographic halftone on the cellophane bag within the set-up box. The design of the bag ties in with that of the box lid, thus forming an harmonious ensemble and enabling the dealer to display the hose with the box top off without soilage of the product. Package created by Arthur Forester Packagings. Box cover by The Reid Press, Ltd., and printing by Bradshaw's, Ltd.

8

8. Convinced that conveniently packaged household products would find a ready market, the Standard Oil Co. launches its Sohio line in handy-grip bottles, topped with black metal caps. Label designs are related in shape and character, thus retaining a family resemblance. Each label, however, bears a different illustration, demonstrating the use of the particular product involved. Bottles by the Owens-Illinois Glass Co. Closures by the Owens-Illinois Closure Division. Labels by Wheeler-Van Label Co.

9

9. Scudder Food Products, Inc., adopts a new package for its Mayflower brand potato chips, heretofore packaged in the traditional type of glassine bag. Design motif is in tune with the product name and the blue and orange color combination on white board contribute toward an effective display presentation. Carton manufactured by the Standard Paper Box Co.

10

10. Clever tie-in of a related group of products is accomplished by the John H. Wilkins Co. through the use of a corrugated mailer for 1-lb. cartons of coffee. The mailer is printed in an allover design which calls attention to all Wilkin products. Corrugated mailer designed and manufactured by Robert Gair Co., Inc.

NEW INFORMATIVE LABELS

which answer the consumer's questions have been adopted for S and W canned foods

THE QUESTION OF INFORMATIVE LABELING which for several years has been agitating the canning industry, among others, has been solved, for the present at least, by S and W Fine Foods, Inc., with the adoption of a new system of label design to cover some 650 varieties and sizes of food and vegetable packs produced by this company.

The new labels, which are gradually being adopted, represent a step forward in can labeling in two major respects. First, the company has definitely adopted the use of direct color lithography to illustrate the contents of each can and by this change has succeeded in increasing the informative value of the front label illustration to a very measurable degree. Secondly, a system has been developed for planning the detailed descriptive panels in a way that takes account of the basic needs of the consumer and, at the same time, allows for the mechanical limitations imposed by the size and shape of the can.

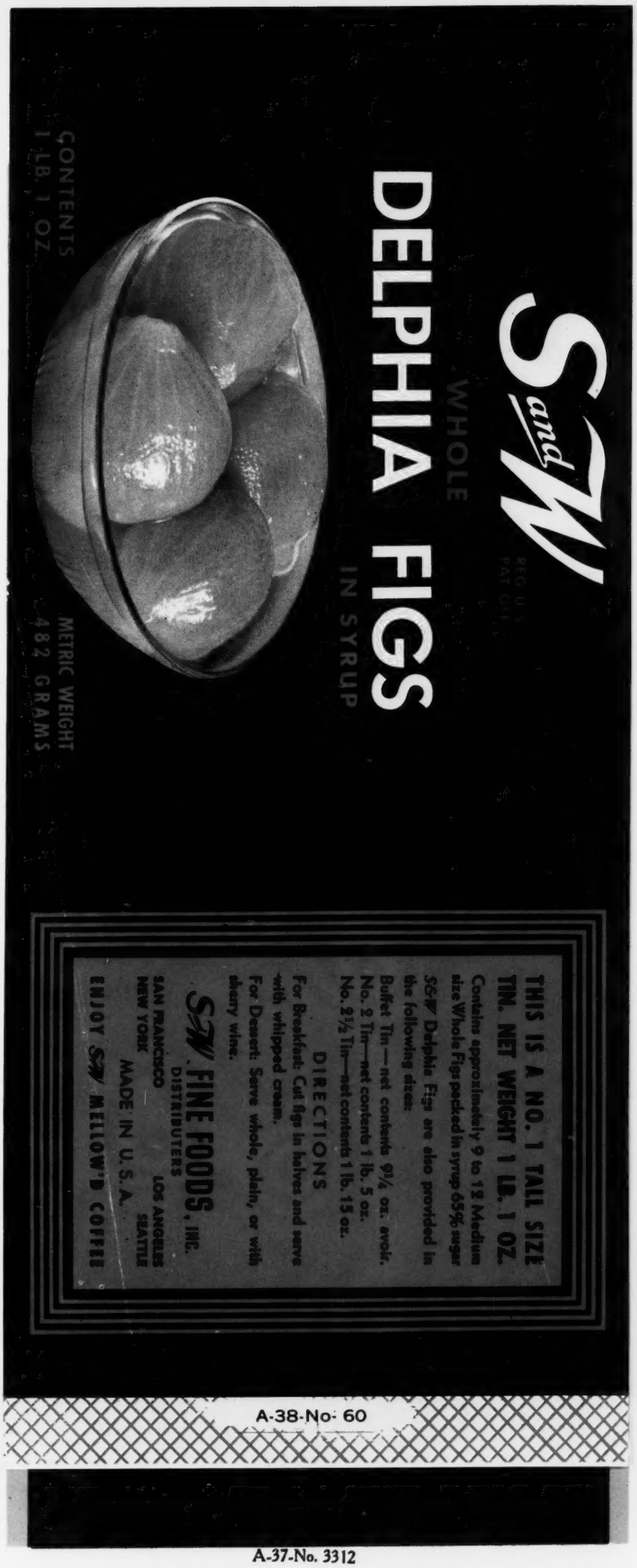
Since the printable area of the label varies in size, S. A. Ranzoni, manager of the company's fruit and vegetable division, first listed the various types of data to be supplied the consumer, in the order of their importance. Thus the least important facts may be omitted on smaller cans or wherever available space is restricted. "The front label," Mr. Ranzoni reports, "read by all consumers, naturally assumed first importance when design was planned and has been made to contain all mandatory information." Thus the front labels on all S and W packages contain the brand name, the registration notice, the variety name and the style description such as sliced, halves, whole, peeled or unpeeled in the case of fruits, or color, size, etc., in the case of vegetables. The front panel also contains a pictorial illustration which, in every instance in the new series, is a direct color photograph plus a statement of contents, usually supplemented with a translation into terms of metric weight, and description of artificial coloring or preservatives when used and notice of the addition or absence of seasoning or syrup.

The back panels of the packages contain all other descriptive matter deemed to be of interest to the consumer. A rigid adherence to a uniform type of composition has been used to insure easy reading for the consumer. The rear panel has been designed to answer the following questions which a survey by S and W disclosed to be the ones most frequently asked by consumers.

1. What size can should I buy?
2. How many sizes are there?
3. What size can is this?
4. How many persons will it serve?

(Continued on page 92)

While detailed descriptive data is supplied on the rear panels of the new S and W labels, direct color photography has been relied upon to exert the major "descriptive" effect as well as to insure ample and pleasing display for the entire series of products marketed by this organization.


S&W
WHOLE
DELPHIA FIGS
IN SYRUP
CONTENTS 1 LB. 1 OZ.
METRIC WEIGHT 482 GRAMS
THIS IS A NO. 1 TALL SIZE TIN. NET WEIGHT 1 LB. 1 OZ.
Contains approximately 9 to 12 Medium size Whole Figs packed in syrup 65% sugar
S&W Delphia Figs are also provided in the following sizes:
Buffet Tin—net contents 9¼ oz. avoir.
No. 2 Tin—net contents 1 lb. 5 oz.
No. 2½ Tin—net contents 1 lb. 15 oz.
DIRECTIONS
For Breakfast: Cut figs in halves and serve with whipped cream.
For Dessert: Serve whole, plain, or with sherry wine.
S&W FINE FOODS, INC.
DISTRIBUTERS
SAN FRANCISCO LOS ANGELES
NEW YORK SEATTLE
MADE IN U.S.A.
ENJOY S&W MELLOW'D COFFEE
A-38-No- 60
A-37-No. 3312

The descriptive panels of the new labels, reproduced in direct color by the Schmidt Lithograph Co., answer consumers' questions in the order of their importance to the consumer as well as the dealer and thus when size restrictions demand the elimination of some data, the least important information may be eliminated without seriously decreasing the informative value of the label as a whole.

NEW

OLD

GUEST EDITORIAL

William M. Bristol, Jr., is not unknown to the readers of MODERN PACKAGING. He has served as senior judge of the All-America Package Competition for many years and has been many times called upon to address packagers on subjects particularly related to packaging production and machinery problems. Undoubtedly no better choice than Mr. Bristol could have been made, therefore, for the guest editorial of this machinery issue of MODERN PACKAGING.

COOPERATION REACHES THE PRODUCTION MAN

THOSE WHO PRODUCE SIMILAR OR COMPETITIVE merchandise are very often confronted with common problems of production. Hence the necessity for close cooperation between such manufacturers should be as apparent to managers in this phase of modern business as it has long since become to those charged with the creation and the expansion of our consumer markets.

Many years ago, sales managers and advertising managers decided that cooperation was essential to them, regardless of the highly competitive nature of their products. In contrast, the story of two decades of packaging development has been principally one of a series of tremendous efforts by individual production managers to keep abreast of rapid changes of methods, machinery and materials without the aid of such close cooperation.

The lot of the production manager has not been an easy one in these twenty years of amazing growth of the packaging industries which followed the change from a condition in which most packaging was a matter of hand work to one in which automatic machinery plays a major part. He began by relying upon his own ingenuity and upon such help as he could secure from the sales representatives and the technical personnel of the automatic machinery manufacturing firms. Quite naturally, under the circumstances, he grew to regard as highly personal the machines upon which he had worked so hard. These machines, often quite complicated and intricate installations, were regarded as not for public exhibition. They contained too many gadgets—too many ingenious little devices which could be protected only under the mask of secrecy.

This attitude is understandable and more readily so when the average company policy of a few years ago is considered. Then visits by production managers to other plants were deemed ill-advised, to say the least, and the trend seemed to be toward confining the men responsible for the actual production of merchandise to plants far away from the executive offices.

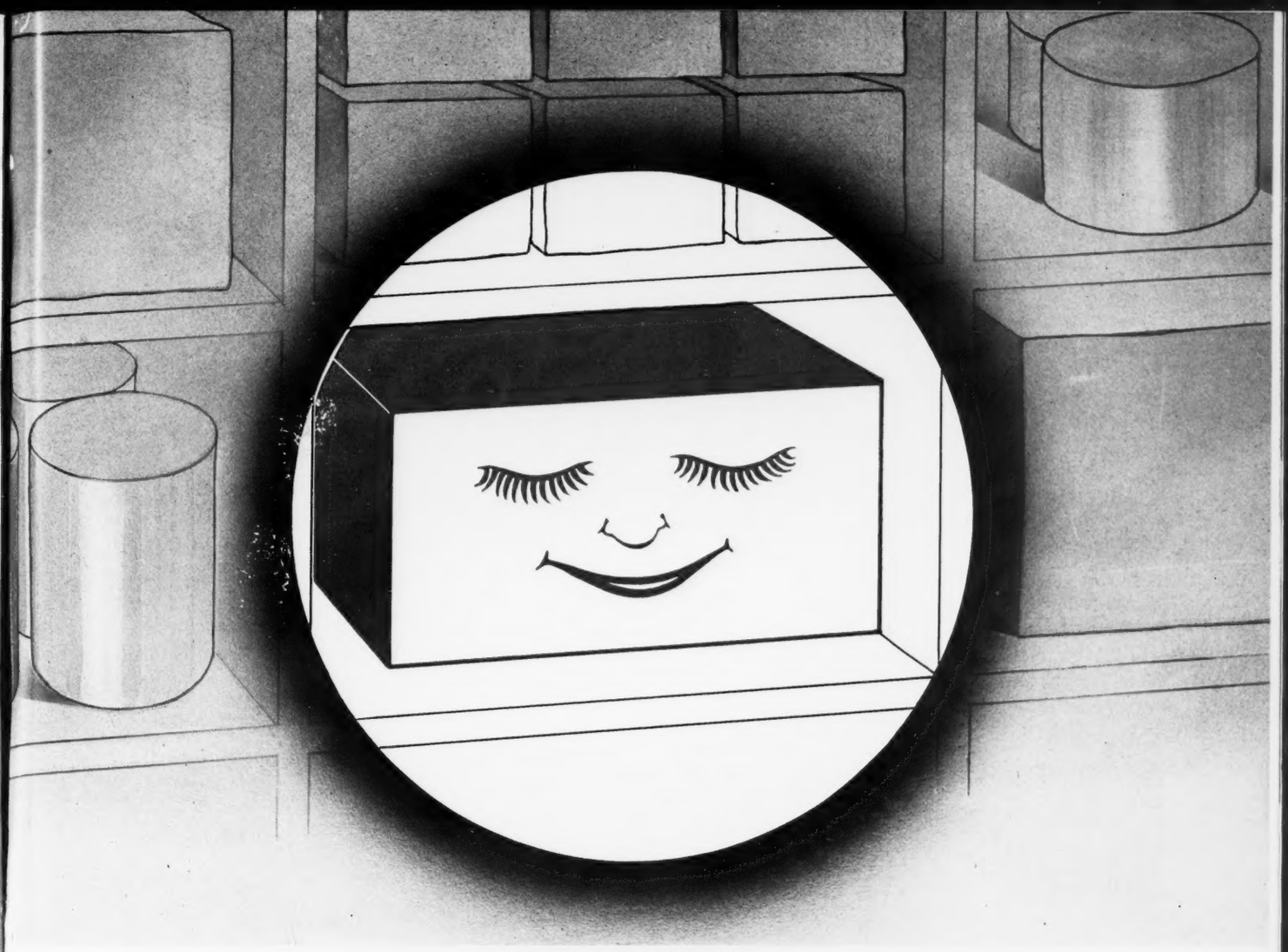
With the establishment of excellent trade papers which cover adequately, in informative articles and in advertisements, the styles and types of machines designed to deal with packaging problems, these troubles of the production manager were lessened, to a degree, but there remained the important factor of experience.

In every packaging plant there exists a graveyard of experimental devices or, perhaps, a mental scrapbook of bright ideas that, in application, became first-class headaches. These, it is safe to say, were due to lack of experience. It means a great deal to a production manager to be able to converse or to correspond with one who is already using the equipment the contemplates installing. It means a great deal to him to see such equipment in actual operation in other plants. Unless he is accorded an opportunity to become acquainted with other men holding similar positions—even in directly competitive plants—he will be continuously handicapped by lack of the experience which they can transmit.

Thus for the production manager to fail to insist that his company should be willing to extend a cordial invitation to others in industry would seem to be extremely short sighted. It is of the greatest importance to all production managers to support movements designed to bring about better cooperation among those entrusted with advancing the technique of package production. His own work will be simplified and his company will benefit directly if the production manager succeeds in eliminating much of the duplication that now exists in costly experimental work—duplication that might well be avoided through an interchange of experiences.

The recent organization of the Production Managers' Assn. was due precisely to a recognition of the definite need for such cooperation. The association is still young; its achievements lie before it. But one thing is certain. Results—in terms of tangible benefits for production managers—will depend almost entirely upon the extent of the support given to this and every other means for the interchange of experience by the vast majority of production managers in plants large and small.

William M. Bristol Jr.



EVERY CARTON TAKES A BEATING But

The Winner Comes Up "SMILING" on the Retailer's Shelf

Every carton gets grabbed . . . thrown . . . scuffed . . . dropped . . . before it reaches the consumer. But only the carton with in-built quality and stamina comes up "smiling" to score an appearance-hit where appearance counts most—at the point of sale.

This year dozens of manufacturers have switched to Burt Cartons, knowing that Burt's technical experts and production specialists assure them foolproof construction; high speed, economical production, dependable service; and the use of superior, tested materials.

Just as for the past fifty years, Burt has been the leader in set-up paper box making, so today Burt's facilities and expert craftsmanship bring the Burt-made carton a reputation for highest quality and true sales appeal.

F. N. BURT COMPANY, INC.

500-540 SENECA STREET, BUFFALO, N. Y.

NEW YORK CITY
630 Fifth Avenue
Room 1461

CINCINNATI
221 Walnut Street
Telephone: MAin 0367

PHILADELPHIA
A. B. Hebeler
P. O. Box 6308
W. Market St. Sta.

MEMPHIS
Frank D. Jackson
2150 Washington Ave.

NEW ENGLAND
A. B. Bacon
BOSTON
120 Boylston St.
SPRINGFIELD
P. O. Box 214
Highland Station

MINNEAPOLIS
J. E. Moor
3329 Dupont Ave. South

CHICAGO
919 N. Michigan Ave.
Room 2203

LOS ANGELES
Louis Andrews
623½ South Grand Ave.

CLEVELAND
W. G. Haxen
P. O. Box 2445
E. Cleveland. Ohio

CANADIAN DIVISION
Dominion Paper Box Co., Ltd.
469-483 King Street, West
Toronto 2, Canada

REDESIGNED CHIPSO PACKAGES

utilize "talkie" characters drawn from advertising to increase attention values

SOME EIGHTEEN YEARS AGO, CHIPSO WAS placed upon the market by The Procter & Gamble Co. as one of the first of what proved to be an ever-growing number of brands of household soap flakes. At that time, the package—which has always received a good reception and ample display from dealers—represented what might be termed "advanced modernism" when contrasted with the soap packages of the day. It utilized bold lettering, large, easily seen panel surfaces and colorful, if undramatic, illustrations accompanied by suitable text explaining the use of the product.

Changing times have resulted in the development of new techniques in advertising and new methods of retail merchandising and these find further reflection in the new package designed by advertising agents Pedlar and Ryan, Inc. While the old package has continued to achieve a relatively high measure of display value, it has met with the increasing competition of more recent soap flake packages and with the rising demand for more precise information on the use and proper application of soap products. The new package takes cognizance of these changes and likewise takes advantage of the display opportunities presented by the newer types of mass display which have become so popular with the supermarket type of store.

The familiar slanting panel lettering indicative of the product name has been retained on the front face of the package, but on both this (*Continued on page 92*)

Retaining the slantwise lettering and color scheme which have become the virtual trade mark recognition point for Chipso, the new package introduces talking characters as a means of achieving display values.

Side panels have been redesigned to meet super-market mass display needs and the talking characters serve to liven up the detailed story which is presented on the rear face of the new package for Chipso soap flakes.

PUT ADDED SALES PUNCH INTO PACKAGE DESIGN

Use Metal Caps that sparkle with style

YOUR container needs the final touch of decoration that can be provided by a stylish metal cap. An attractively lithographed cap creates additional display of your trade-mark at the point where it will be seen by your customers every time they open and reseal your bottle.

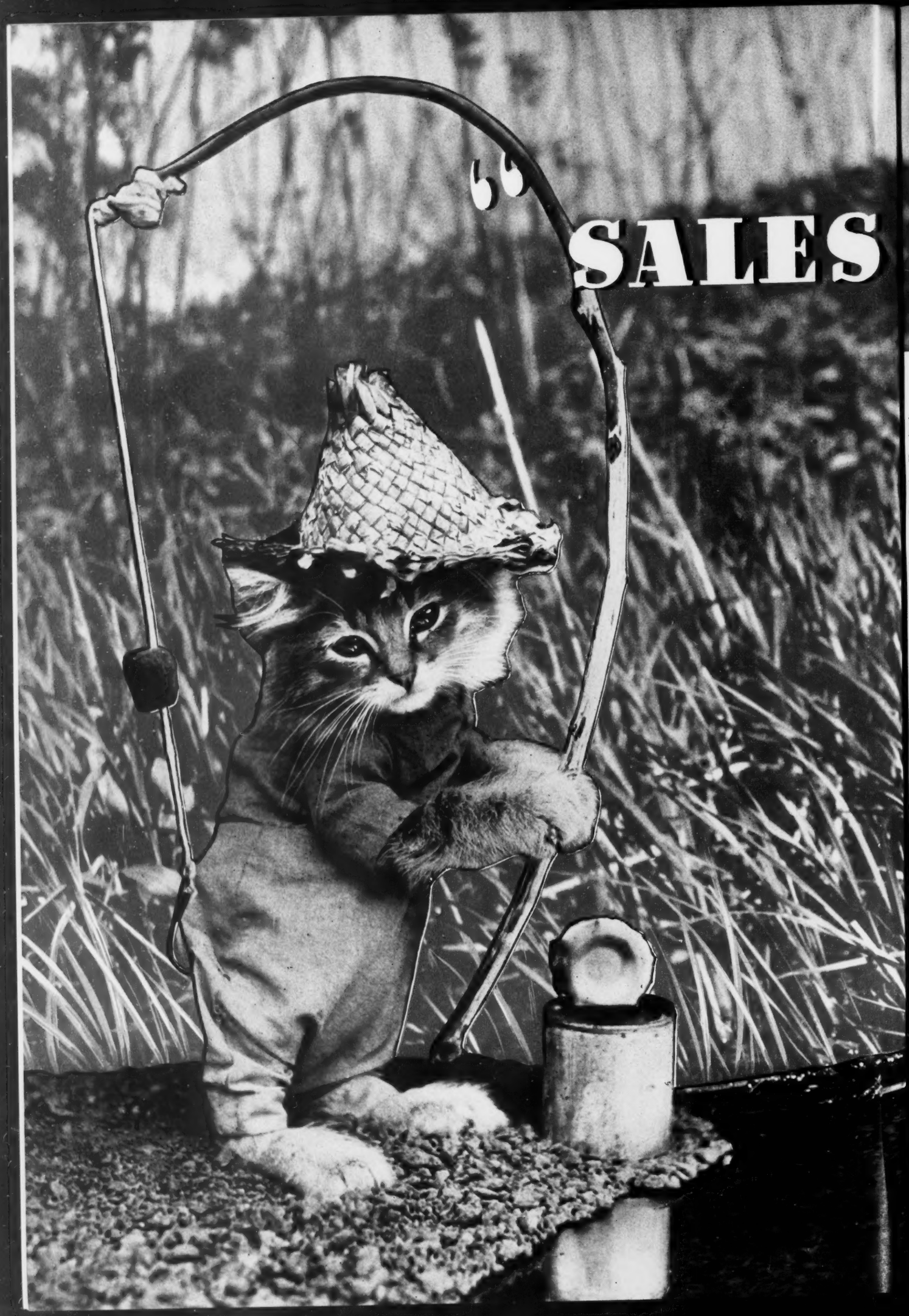
Armstrong's Metal Caps offer you advantages in displaying your trade-mark in sparkling colors. The lithography on these metal caps is accurate and bright . . . and protective coatings of high quality are applied to safeguard the colors against possible marring or bleeding. As a result, under normal conditions you can depend upon them to retain their neat appearance for the life of your package.

Armstrong's Metal Caps are available in a wide range of standard designs and may be selected in either plain or specially lithographed colors that will harmonize with the color scheme of your packages.

In addition to their decorative appeal, Armstrong's Metal Caps are dependable seals that safeguard your product against leakage and evaporation. They do their duty in helping to deliver your full product quality safely to your customers.

Specify Armstrong's Metal Caps for your packages. Write today for samples, prices, and descriptive literature. Armstrong Cork Products Company, Closure Div., 916 Arch St., Lancaster, Pa.

• *Armstrong's* METAL CAPS •


"SALES

S NAGGED ?"

It's mighty hard to do much sales-fishing when your product is hooked to an out-of-date package.

A good product may sell very well on the strength of quality alone. But with the addition of a distinctive O-I *Sales*package... sales are accelerated to even greater heights. Bring your problems of container, closure, label and carton to *Sales*package Headquarters. Owens-Illinois Glass Company, Toledo, O. Branch offices in most principal cities.

● *The Futura (on the left) and the Modernistic are excellent examples of Owens-Illinois SALESpackages. Available in all popular sizes.*

..an OWENS-ILLINOIS *Salespackage* will get you off the hook!

inal trained and photographed by Harry Whittier Frees.

A PACKAGED HEALTH RESORT

THE PROBLEM OF SUBSTANTIALLY DUPLICATing the conditions found in a natural hot sulphur bath in the home has, it is claimed, been solved by Baer Laboratories in their formula sulfuraid "21," a clear, non-greasy, concentrate sulphur compound in liquid form. The development of the formula raised, however, a number of packaging problems which have been ingeniously solved by the Baer organization, working in conjunction with a group of package suppliers.

Problem number one involved the matter of measured dosage and automatically excluded the use of a single container for a multiple number of doses. The solution was here found in the use of 21 Kimble glass vials, each containing exactly the proper quantity for a single bath.

These vials are of the recess shoulder type and equipped with Anchor-Hocking molded closures, the side walls of which run flush with the sides of the vial. A Palm, Fechteler transparent label presents the product name and slogan in white against the background of the orange colored product itself.

Problem number two involved the proper presentation and packing of these 21 vials. It was desired that the package be of as simple a nature as possible, make a dramatic and dignified appearance on display, provide ample protection for the vials both in shipment and in the home and finally, present the vials in a manner which would prove most convenient to the user.

The container, as was developed by Shoup-Owens, Inc., consists of a set-up box or platform, covered with a cream colored flint paper and printed in maroon to match the color of the box top. The platform base is die-cut with three rows of seven round holes each and contains a similar die-cut panel in its interior, about an inch and a half above the floor of the base. Thus each bottle is held firmly in place in correspondingly positioned holes.

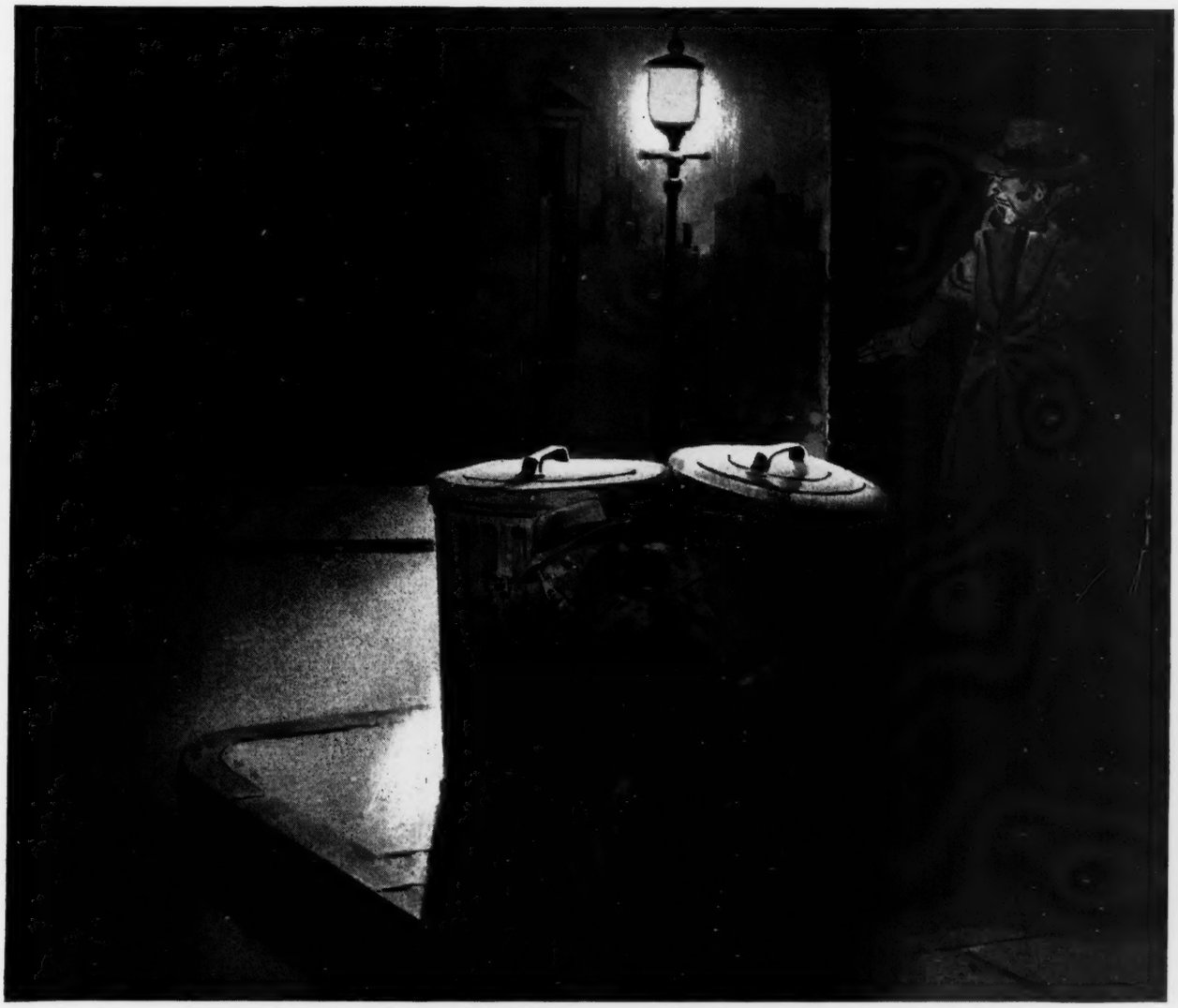
Since design of the exterior of the box was restricted to the utmost simplicity, it was found desirable to place instructions for the use of the product on the inside of the box cover. Here they appear in full detail without confusing the eye while the package is on display.

1

2

3

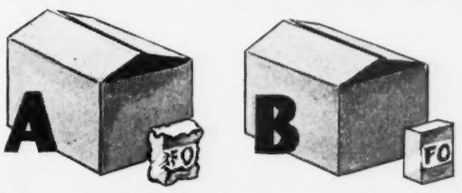
1. The solid color maroon box top contrasts favorably with the cream and maroon base. **2.** The die-cut platform base forms a firm support for the 21 tubes, full directions for the use of which are presented in unobtrusive position on the interior of the box top. **3.** The easily opened vials are decorated with transparent labels which utilize the color of the product itself as background.



UNDER COVER!

Not one shipper out of ten suspects it when *Concealed Damage* is lying in wait to destroy the sales appeal of his products—for *Concealed Damage* doesn't come to light until the guilty shipping cases are unpacked.

Most *Concealed Damage* can be avoided—along with the sales slumps that follow it—through the unique method of "Packaging by Prescription" that Container Corporation of America has developed. Crushed packages and defaced labels rarely happen in a Concora shipping case that meets special rigidity standards determined by its contents *and* by the particular shipping trials it will meet. Our unequaled experience in the manufacture of both shipping containers and folding cartons can help you. Call our representative today.



Both "acceptable" BUT — there are a number of crushed and defaced cartons in shipping case "A." Contents of case "B" unpack in perfect condition, however, thanks to special rigidity specifications that helped produce the one correct shipping case for the job.

CONTAINER CORPORATION OF AMERICA

General Offices: 111 West Washington Street, Chicago, Ill. • *Mills, Factories and Sales Offices at Strategic Locations*

HOW FOURTEEN LEADING FACTORIES HIRE AND TRAIN PACKAGING PERSONNEL

THE ASSUMPTION IS ALL TOO FREQUENTLY made, when machinery installations are contemplated, that the figures cited by a machinery manufacturer for speed and quality of output will hold, no matter what the degree of skill of the attendant personnel may be. Obviously, such an assumption is ill-founded and has frequently caused much friction and much disappointment. While packaging machinery of an increasingly automatic type would seem to make the machine operator far less important than the former hand operator or the attendant of a semi-automatic machine, the fact remains that the skill and training of personnel is a very vital factor in making possible the securing of the utmost in machinery efficiency.

Thus every plant manager may be assumed to have more than an academic interest in the methods used in training personnel in leading plants throughout the country. While conditions in each plant will tend to individualize the production manager's problem, certain general points will be found to exist in all cases.

MODERN PACKAGING's Institute of Package Research has, therefore, with the cooperation of the manufacturers listed on the next page, prepared this study of the methods employed by these leading firms in training their operators, supervisors and maintenance personnel for packaging operations.

Each company was asked the following questions: Who selects new personnel for your packaging departments? What are the requirements or standards set for the selection of new machine operatives? What are the requirements for hand operators? For mechanics? What special training for foremen and foreladies? How are operators trained? How long is the training period? Who trains them? Are operators "specialists" in any given operation or are they trained to be able to work at a number of stations? Are wages proportioned to skill? Are any physical tests made in hiring or periodically after hiring?

Each production manager, personnel director or plant superintendent has answered these questions in his own way and many have included in their replies much additional data, too interesting to be deleted. Since any attempt to tabulate the answers would serve to confuse rather than enlighten the reader, they are here presented, each in its entirety, as supplied by the various cooperating correspondents.

★ *a survey* ★ by the ★ INSTITUTE OF ★ PACKAGE RESEARCH ★

BRISTOL-MYERS CO.

"The personnel in our packaging department is selected and hired by the head of our finishing department, to which individual they are responsible for employment.

"We do not have any fixed set of requirements or standards in the selection of new machine operators, other than that they must undergo a thorough physical examination by our company doctor. We have recently amended the physical examination requirements to include the Wasserman test. In general, we lean towards the selection of younger girls, although this is not a fixed company rule. Proximity to place of employment and residence in the local town of Hillside, where our plant is located, we consider desirable. We do not require, nor particularly desire, that new employees have previous factory experience.

"The operators are trained by the supervisors to whose department they may be assigned. Usually the new girls are assigned to the easier jobs which can be explained and demonstrated to them sometimes in a few minutes, after which time they usually are able to handle the job alone. When they graduate into some of the more difficult jobs, such as operating high speed packaging machinery, they sometimes have a trained operator at their elbow for several days until they have thoroughly mastered the new machine.

FOR MEN ONLY

Hazel-Atlas presents Mascu-Line, a new line of bottles particularly designed for shaving lotions and other toiletries for men. Mascu-Line Bottles are simple and tailored in design, compact in shape, yet affording ample flat label space. They fit easily into traveling bags or bathroom cabinets. You can take your choice of two pouring openings: the regular kind, and (for concentrated products) a small opening for pouring small quantities of liquid. Mascu-Line Bottles are manufactured in four convenient sizes of 2, 3, 6 and 8-oz. capacity. Samples and further information on request.

HAZEL-ATLAS GLASS COMPANY WHEELING, WEST VIRGINIA

"In general, our operators are trained to be as versatile in their accomplishments as possible so that we can maintain good flexibility in our scheduling. To further clarify this point, we would point out that we have about 140 packaging machines on the floor and about 160 different jobs on the floor. Our average payroll of machine operators, however, is between 60 and 70 girls, so that perhaps 50 per cent of our equipment is always idle. In order to switch over from one line to another as the production schedule requires, it therefore becomes obvious why we want our operators able to do efficiently not one but many different jobs. In spite of all this, we have a few operations and types of operations which require unusual skill on the part of the operators. Operators who can and do do these harder tasks are compensated by getting the higher of the two wage rates which we have for machine operators.

"We request, but do not require, that all employees submit themselves to a periodic physical examination by the company doctor at least once a year, at no expense to the employees. The outcome of these physical examinations is a confidential matter between the doctor and the nurse, the latter being on our payroll. This because these physical examinations are conducted on a voluntary basis.

"With regard to mechanics, we have very little turnover in these and must admit that the finding of a good operating mechanic is, for the most part, on a trial or error basis. We further have found that we have had to train the operating mechanics ourselves, since it seems virtually impossible to find men who are skilled in this art in the open market. In general, we have found that toolmakers and machinists very seldom make good operating mechanics. We have had better luck with men whom we have taken from the ranks of our factory employees and trained to do the necessary mechanical work in connection with the units which are assigned to them. This work includes changeovers, greasing, minor repairs and gadgeteering, in order to keep the production lines running smoothly.

"We have supplemented the training of these men by actual shop training under our machine shop foreman, so that they gradually are accumulating experience and are able to work independently and make their own parts and repairs when need arises. We have, however, in addition, a fairly well equipped machine shop manned by a foreman, three toolmakers and two apprentices, whose primary job it is to make and rebuild broken or damaged parts. We have not had a change in personnel in this shop for many years and, should the necessity arise, we would simply be in the market for a well-trained toolmaker and general all-around machinist."

THE CARTER'S INK CO.

"Our new personnel is selected first by personnel men, subject to the tentative acceptance or rejection by the foreman of the department concerned. Requirements for machine and hand operators are good health, alert appearance, grammar school education, English speaking, but experience is rarely necessary. Set-up mechanics have the same requirements, plus mechanical aptitude. This latter factor is observed during a period in which set-up mechanics act as helpers.

"Generally speaking, all men are hired without the experience requirements and are observed for a period in the shipping department, shifted to other departments and promoted as their abilities show up. Foremen are usually built from the ranks in this way.

"Training of operators is mostly by doing, with guidance by foreman, straw-boss and inspectors. No training course, as such, is used, largely because of the diversity of the work and the fact that relatively few operators are doing the same job.

"Training of foremen is on the same basis, with guidance from the accounting department on control figures and from the superintendent on operating problems and personnel handling. This latter also has the guidance and help of the personnel manager. The period of reaching proficiency is quite different with different jobs, so no time is set as a training period. However, operators are reported on, every three months up to a year after hiring, for general aptitude. (*Continued on page 84*)

COOPERATORS IN THIS SURVEY

THE AERNER CO., INC.
A. J. Meier

BRISTOL-MYERS CO.
P. J. Lathrop

THE CARTER'S INK CO.
Richard B. Carter

GENERAL FOODS CORP.
P. W. Swan

GROVE LABORATORIES, INC.
H. J. Sander

LEHN & FINK PRODUCTS CORP.
Dr. M. A. Dittmar

MERCK & CO., INC.
Stanley W. Burnham

NATIONAL TEA CO.
A. H. Erie

SHARP & DOHME, INC.
L. L. Miller

D. & L. SLADE CO.
Norman S. Dillingham

THE TRADE LABORATORIES, INC.
C. B. Brush

THE UPJOHN CO.
F. G. Varney

JOHN WYETH & BROTHER, INC.
M. R. Brenner

Comments from other production managers on points raised within this article will be welcomed and published in forthcoming issues of MODERN PACKAGING.

PLIOFILM transparent bags are an economical answer to many packaging problems where a high degree of resistance to *either* moisture absorption or loss of natural moisture content is required.

Pliofilm bags keep dry products *dry* and moist products *moist* because they are moisture-vapor proof, liquid-proof and sift-proof. They impart neither taste nor odor and are not affected by contact with grease or oils.

Where extra strength or extra resistance to rough handling is required, bags of Pliofilm laminated to various grades of paper are available.

Simple heat-sealing methods close Pliofilm bags with a strong airtight weld, free from any minute leaks, making it possible to package products like pickles in their own brine and fruits in their own juice. They also provide an ideal package for all materials of hygroscopic nature.

These superior bags are now fabricated in a wide variety of styles and sizes by a number of prominent converters.

SUGGESTED USES OF PLIOFILM BAGS

Oysters · Fruits · Candy Nut Meats · Tobacco · Crackers · Cookies · Cakes · Fruit Drink Powders · Potato Chips · Pretzels · Popcorn Pharmaceuticals — and all similar products

•

Names of Pliofilm bag converters will be furnished upon request.
Address: Pliofilm Sales, The Goodyear Tire & Rubber Company, Inc., Akron, Ohio.

**Pliofilm, a registered trade-mark of The Goodyear Tire & Rubber Company*

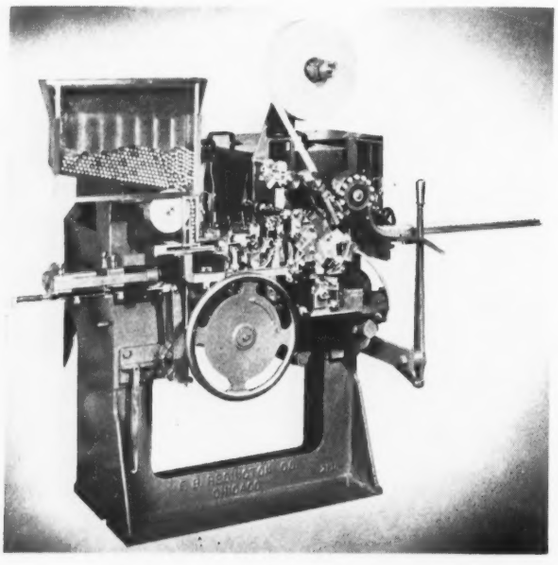
THE GREATEST NAME IN RUBBER

GOODYEAR

A PORTFOLIO OF MACHINE CASE HISTORIES

(Continued from page 37)

The paper band required on the old Carter's package (left) has been made unnecessary in the new package through the invention of a new machine which combines the operations formerly performed by two separate units.



The new cellophane wrapping machine incorporates a code device for stamping date and batch designation on the booklet and is equipped with a photo-electric cell mechanism for controlling register of printed design on wrapper. Photos courtesy of F. B. Redington Co.

The Case of the Little Liver Pills

One of the oldest and best known of patent medicines, Carter's Little Liver Pills, has recently undergone a change in package appearance—a change which halved the number of machines required to perform a packaging process and which substantially reduced the quantity of paper utilized in this particular step of the packaging operations. The early cellophane wrapping machines—which were, in fact, not so very old at all—have been replaced by new machines which had outmoded them.

Formerly the separate packaging operations were performed on different machines. One unit folded a booklet around the glass vial containing the pills and placed a paper band around the booklet to hold it in position. A second machine wrapped this assembly in cellophane.

Today a single new cellophane wrapping machine performs the entire operation formerly carried out by a battery of two outmoded machines. The paper band has been eliminated, providing a sizable saving and the package itself has been made more convenient and easier to unwrap. Labor costs at the same time have come down because there are only half of the former number of machines to be attended to.

In the latest type machine, as installed in the Carter plant, the vials, ready for wrapping, are placed in a magazine. Cellophane, printed in fixed design, is supplied to the machine in rolls. Booklets are stacked in another magazine. The unit automatically fills the vials from their magazine, feeds the booklets from the separate booklet receptacle, folds booklets and places them around the vials, cuts wrappers from rolls of printed cellophane and wraps vial and booklet. The cut-off of wrappers is controlled through a photo-electric cell device.

So marked are the savings involved that it was found advisable to discard machinery still useful.

The Case of the Thirteen Bag Sealers

The problem of supplying restaurants, hotels and institutions with measured quantities of specially ground coffee for use in the familiar Silex coffee making machines has been solved by Standard Brands, Inc., through the development of a simple, inexpensive, easily handled, easily filled and easily opened parchment paper bag. The paper which is used is specially treated with a heat sealing compound which both facilitates its fabrication into bags and permits of an air-tight seal after the coffee has been measured and filled into each container.

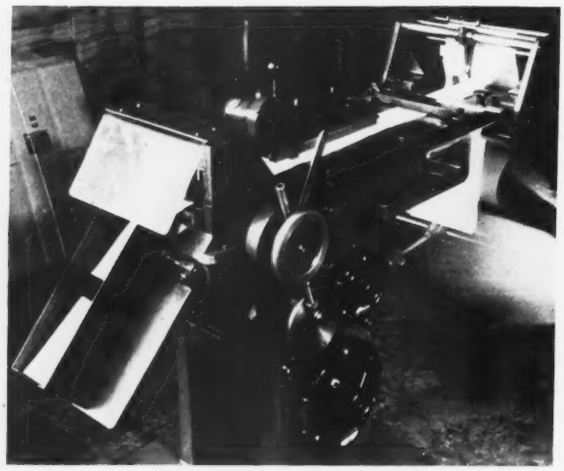
The specialized nature of this bag and the ease with which it can be fabricated led the company to desire to do its own bag making and thus to hold stock of fabricated bags down to a minimum and to take advantage of the discount available through purchase of raw materials in unfabricated roll form. At the same time, the company set-up prohibited the packing of all bags in a single plant and therefore an arrangement was reached which has worked out, it is reported, with great efficiency.

In the Hoboken plant of Standard Brands, a single bag making machine was installed. This plant is located close to the source of paper supply and itself handles a very large volume of the total coffee processing operations. However, in addition to supplying the bag needs of the Hoboken plant, this machine has been found capable of meeting the requirements of a number of other plants as well and thus supplies a total of thirteen filling points where the bags are filled and then sealed on a small heat-sealing press.

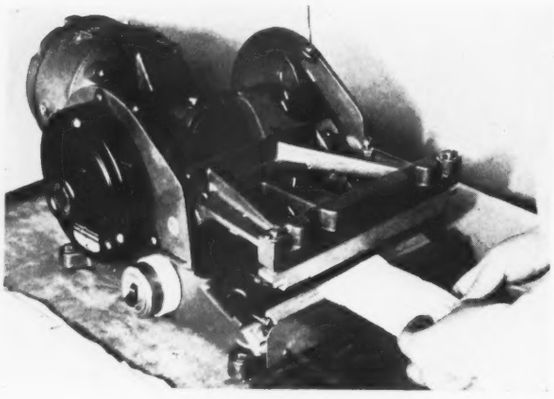
DOES your product stand out on the dealer's shelves? Heekin Lithographed Metal Containers . . . in all shapes and sizes . . . are famous for their true color reproduction. From the grinding of the basic colors to the final delicate register on the gigantic presses, every process is checked carefully in the huge Heekin plants. From the laboratory, or the design department, to the final delivery on your railroad siding, Heekin takes a personal interest in every customer. THE HEEKIN CAN COMPANY — CINCINNATI, O.

HEEKIN LITHOGRAPHED CANS

WITH HARMONIZED COLORS



The Wrap-Ade bag making machine as installed in the Standard Brands Hoboken plant.



One of the thirteen Wrap-Ade bag sealing machines. A guard device has been removed to show interior construction. The unit is operated by foot treadle control.

In effect, plants using these bags, except the Hoboken plant, are in the position of a regular commercial bag purchaser, receiving pre-fabricated bags, although, of course, the transaction is entirely an inter-company one. In the Hoboken plant, the linkage between the bag maker and the bag sealer is so close that bags can be made up immediately prior to use when desired.

This case is cited because it illustrates one of a number of instances in which production machinery may be found economical when all of the factors concerned are carefully studied, although at first glance it would have seemed that the installation of fabricating machinery for this tpye of bag would have been out of the question.

The Case of the Double-Faced Bottle

In the Harriet Hubbard Ayer plant, as in many another cosmetic plant, a perpetual problem has existed whenever it was necessary to place two labels upon a jar, so positioned that one was centered on the front of the jar and the other stood exactly 180 deg. away from it on the rear face of the container.

Previous practice had called for the use of jigs and for two separate labelers, so positioned that one operator could place the front label into position, passing the jar on to a wiper and examiner who, in turn, would pass the container on to a second operator and a second labeling machine. At this stage the jigs and guides would come into play so that the operator might judge with reasonable accuracy whether the round container was properly positioned to permit the placing of the rear label.

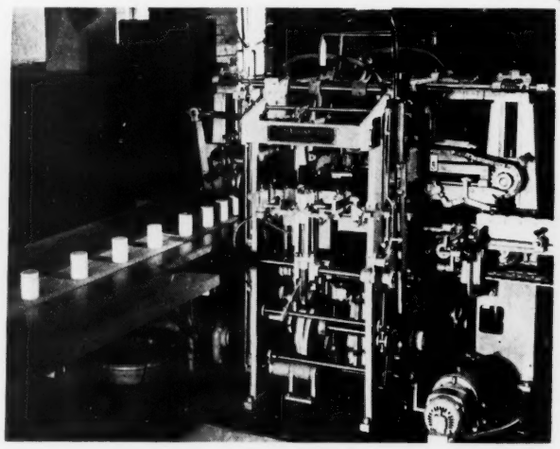
To overcome this difficulty and to speed up production substantially, a special unit was devised, capable of handling packages ranging in size from 2 oz. up to as high as 40 oz. and capable of applying two labels, simultaneously, on opposite sides of the container at a speed of as high as 60 bottles per minute.

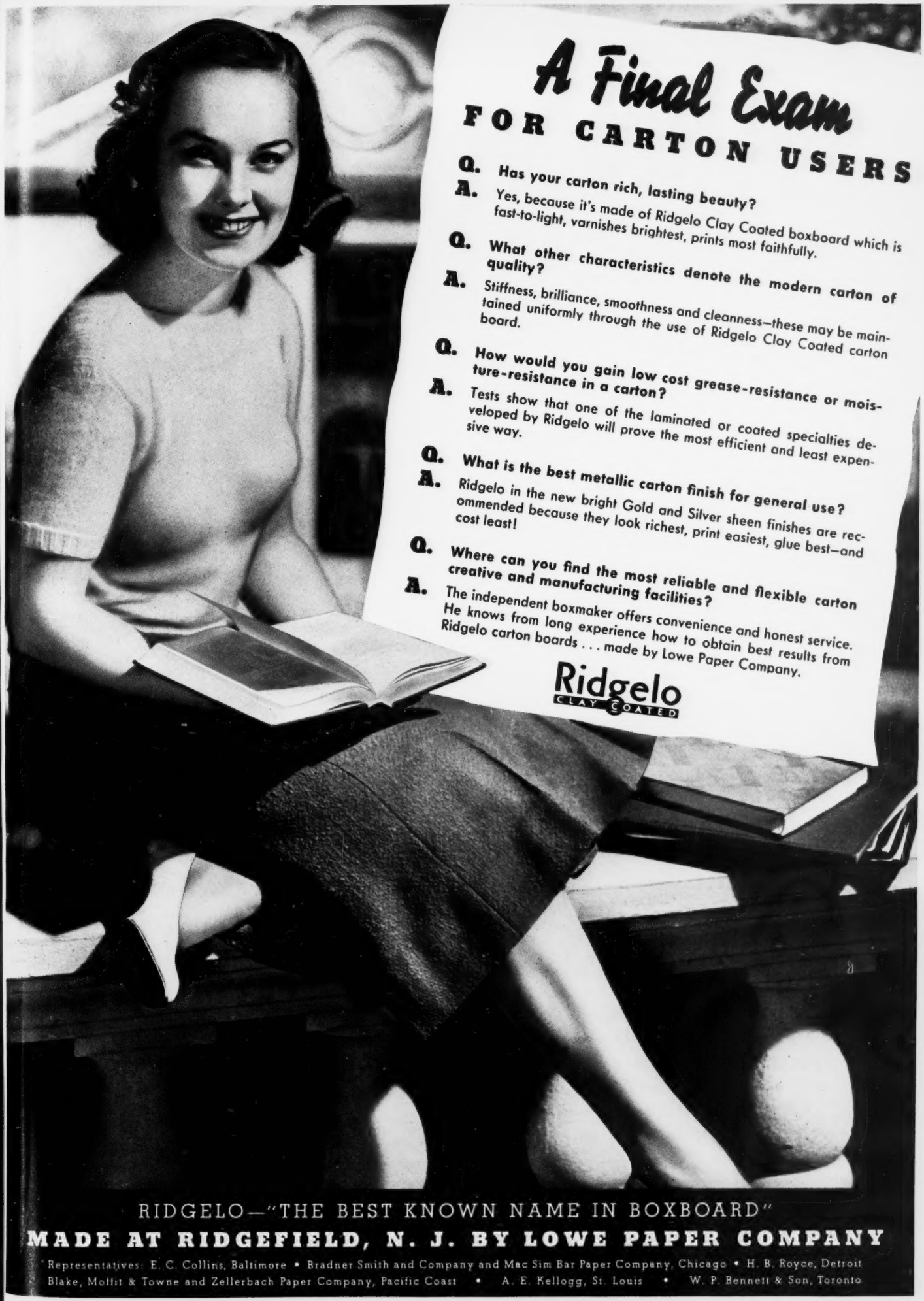
The unit is fully automatic and can be used on round, oval, square and rectangular shaped containers. It consists essentially of two labeling machines set on either side of a conveying mechanism. This mechanism first centers the bottles and holds them in place between upper and lower moving chains. Both labels are applied simultaneously and thus the pressure of application, being equal on either side of the container, does not move the container out of line on the conveying mechanism.

At the next step, both labels are pressed firmly into place by a pair of rubber sponge pressure pads and then proceed to the discharge end where they feed onto a moving belt to the packing and cartoning tables.

The unit designed and manufactured by the New Jersey Machine Corp., is equipped with a no-bottle, no-label control which is an index so arranged that if there is no bottle presented in position for labeling, no label is lifted from the label hopper. This, it is claimed, permits of continuous operation of the machine even with an intermittent supply of material and eliminates stops for clean-ups or when jars are missed or stopped.

The fully automatic duplex labeler which is being used by Harriet Hubbard Ayer, Inc., to replace work formerly performed by two single-face labelers and a number of hand operators.




A Final Exam
FOR CARTON USERS
Q. Has your carton rich, lasting beauty?
A. Yes, because it's made of Ridgelo Clay Coated boxboard which is fast-to-light, varnishes brightest, prints most faithfully.
Q. What other characteristics denote the modern carton of quality?
A. Stiffness, brilliance, smoothness and cleanness—these may be maintained uniformly through the use of Ridgelo Clay Coated carton board.
Q. How would you gain low cost grease-resistance or moisture-resistance in a carton?
A. Tests show that one of the laminated or coated specialties developed by Ridgelo will prove the most efficient and least expensive way.
Q. What is the best metallic carton finish for general use?
A. Ridgelo in the new bright Gold and Silver sheen finishes are recommended because they look richest, print easiest, glue best—and cost least!
Q. Where can you find the most reliable and flexible carton creative and manufacturing facilities?
A. The independent boxmaker offers convenience and honest service. He knows from long experience how to obtain best results from Ridgelo carton boards . . . made by Lowe Paper Company.
Ridgelo
CLAY COATED

RIDGELO—"THE BEST KNOWN NAME IN BOXBOARD"

MADE AT RIDGEFIELD, N. J. BY LOWE PAPER COMPANY

Representatives: E. C. Collins, Baltimore • Bradner Smith and Company and Mac Sim Bar Paper Company, Chicago • H. B. Royce, Detroit
Blake, Moffit & Towne and Zellerbach Paper Company, Pacific Coast • A. E. Kellogg, St. Louis • W. P. Bennett & Son, Toronto

3 more displays WIN for EINSON-FREEMAN ..and why

In addition to First (Gold) Award jointly won by two Schaefer Beer displays in the All-America Packaging Competition, Einson-Freeman displays carried away three more leading honors in the Babson Institute Exhibition.

Why? three entirely different approaches—but same results: Sex—Sentiment—Speed . . . and each DRAMA . . . Showmanship that SELLS.

If you want to inject the same quality in your displays that wins both prizes and SALES, consult—

EINSON-FREEMAN CO INC

Lithographers

LONG ISLAND CITY • NY

MODERN DISPLAY

DISPLAY DISCUSSIONS

among advertisers indicate increasing acceptance of windows as a measurable advertising medium

A PRONOUNCED CHANGE—AND A VERY healthy one—is to be noticed in the attitude of major national advertisers, and of the advertising agents who serve them, toward the window and counter display as a medium of advertising. True enough, national advertisers by and large have always provided the largest portion of the annual expenditure on window displays, but such provision has until very recently been made on the basis of anything but the purchase of a measurable and tangible advertising opportunity. Advertisers sought "dealer cooperation," "dealer good will," "free space," "point-of-sale tie-in"—sought anything, in fact, rather than the opportunity to reach people in substantially the same way as they can be reached through billboards, newspaper or magazine advertising, or radio, i.e., through an advertising medium.

This change in attitude has been accumulating for several years. The first major break in the dam occurred when the long-delayed report of the National Window Display Research, sponsored by the Advertising Research Foundation of the Association of National Advertisers and the American Association of Advertising Agencies, was published.

Since then the hitherto small trickle of interest in display as a medium, rather than as an accessory of advertising, has turned into a virtual flood. Leading advertisers and major display suppliers who heretofore were considered as "second stringers," if invited to speak at all, today find themselves in start position on the programs of every meeting of any division of the advertising craft. Their opinions are sought after, their experiences are studied, their advice is solicited.

Thus, in the last month, the subject of window display occupied a major position on the program of the Association of National Advertisers meeting recently held at the Westchester Country Club. While much of this discussion is of very specialized interest to the individuals attending the meeting, the paragraphs which follow will not only establish the general tenor and attitude of the entire symposium but should serve as well to bring into clear focus a number of the more recent attitudes toward displays and experiences with them. Unless otherwise noted, the quotations are drawn from speeches delivered at the A. N. A. conference.

Attention Value vs. Selling Power

"During 1938 we must learn to obtain maximum sales results from display promotions. Our efforts must be practical. There are many things we can do to attract attention—but we want to attract the right kind of attention that will be reflected in our cash registers. A cat in a grocery store window, chasing a mouse, will attract a large crowd. The grocer does not profit, however, because the chase is so interesting that the on-lookers do not pay any attention to the merchandise. The cauliflower becomes, to the spectator, not a vegetable which is tasty and nutritious, but an obstacle for a cat to jump over." *(Continued on page 62)*

F. W. Spaeth, vice president, W. L. Stensgaard & Associates, Inc.

display gallery

TAP LIKE SNOW WHITE...OR
HAMMER LIKE "DOPEY"
you type easily—speedily with a
ROYAL PORTABLE
TOUCH CONTROL instantly adapts the ROYAL to your finger pressure!

1

2

3

4

SCHICK SHAVER
NO BLADES · NO LATHER
"PROVED
BY MORE THAN
2,000,000 men
AND 7 YEARS!"
MOST COMFORTABLE SHAVE A MAN EVER HAD!
ONLY SCHICK CAN SAY THAT
WITH A SCHICK YOU ARE NOT A "GUINEA PIG" FOR A NEW PRODUCT!
YOU ARE SURE OF CLOSE SHAVES WITH A TIME TESTED SCHICK!

5

1. Snow White and Dopey, two characters from Walt Disney's screen triumph, effectively demonstrate a major sales argument for Royal portable typewriters—their easy adjustment to every touch. Snow White and Dopey alternately tap and hammer the keys, while the name "Royal Portable" flashes up in red Neon effect as Dopey's hammer falls. Created and produced by the Einson-Freeman Co., Inc.

2. An actual carton of Rosedale butter can be inserted in a die-cut opening on the face of this counter display, now being used by the Lewis-Mears Co. Two circular cards, eyeletted on the rear of the display, carry numbers which show through die-cut openings, thus providing the dealer an opportunity to keep in step with day-by-day changes in the price of butter. Unit created and produced by The Forbes Lithograph Co.

3. The appetizing goodness and ease of preparation of Nestle's Ever Ready cocoa is attractively portrayed to thrifty housewives by a display card in back of the sturdy table-type floor stand. When a demonstrator is present, the display card may be removed, thus permitting the attendant to illustrate how quickly Nestle's cocoa can be made. The floor stand affords ample room for a storage of packaged cocoa in the aperture provided in the base of the table display. Lithographed by Oberly & Newell.

4. Appetite appeal incorporated in the center piece of a five-card window display is winning sales for Jacob Ruppert beer and ale. The unit is constructed in two planes, the front plane forming

the arm of a chef, holding an actual metal tray upon which beverages and other desired food products may be placed. In addition, shelf space is provided, permitting the dealer to display food items other than beer or ale. Lithographed in full color, this unit was designed by Advertising Arts, Inc., under the supervision of the Jacob Ruppert Brewery.

5. The advantages of buying a Schick dry shaver are stressed in the deluxe animated display illustrated. Motion consists of a battery-driven turntable which successively shows three separate illustrated versions of the sales story which appeared in newspapers and magazines. A giant-sized shaver, mounted on the display, calls attention to the construction of the product and doubles the interest in the unit. Built of wood and finished in deep colored lacquers, the unit was designed and manufactured by Kay Displays, Inc.

6. Thirty-six individual packages of Quicaps, new closures for Baby's bottle, are packed in this display container, appropriately printed in pink and blue, traditional colors for infants. A platform is provided to hold an actual infant's bottle sealed with a Quicap, thus affording visual demonstration of the product. Designed by C. O. Woodbury and manufactured by the Russell Box Co.

7. Attention value plus a sales story told in a flash is the formula successfully expounded in the new McKesson & Robbins Citrated Carbonates window display. The smiling head of a party-goer, with his "morning after" glass of effervescent alkalizer, bursting through the background of a convivial "night before" dinner scene is the dramatic motif of the unit. Two die-cut side cards, showing the package in giant size with appropriate copy, are used in conjunction with the center piece. Designed and lithographed by The Polygraphic Co. of America, Inc.

8. Few customers can pass this Ivanhoe Foods floor display without stopping to handle one or more articles and many "added sales" can be secured without effort or attention from clerks. The comic chicks parading around the sides of the floor merchandiser attract attention to the qualities of the product. Display stand manufactured by Robert Gair Co., Inc.

9. The unusual perspective of this display, which stands about three feet high, catches and holds the eyes of the shopper and gets over the story of Eyelo rapidly and forcefully. By featuring three planes and special die-cut sections, the unit achieves added effectiveness. Created by The United Drug Co. and lithographed and produced by The Forbes Lithograph Co.

10. Successor to the Maine "Potato Boy" cut-out, the Maine "Corn Girl" floor display merchandiser encourages consumers to help themselves. The inverted, cone-shaped tray, ingeniously made in the form of an apron, holds the cans in jumble fashion while the round bottom represents a huge can. The attractiveness of the model is vividly transmitted through direct color photography. Produced by Einson-Freeman Co., Inc., and created in collaboration with advertising agents Brooke, Smith, French & Dorrance.

11. "Sure," a new breath deodorizer, is conveniently packaged in Kimble vials of a size easily carried in handbag or vest pocket. The new product is displayed by means of counter merchandisers that urge self-service. Both display card and display container utilize a design with a poster-type motif to forcefully get over a visual story of the product.

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DISPLAY DISCUSSIONS

(Continued from page 59)

On "Cheap" Displays

"I am not going to dwell on display from the point of view of design, except that I want to say that in my experience I have sold cheap displays and medium displays and good displays. I have never been convinced that cheap displays, poorly designed, lacking in the proper number of colors, lacking in good workmanship, were ever a good purchase. You will probably get just about what you pay for, and I think that is true all along the line."

Maurice Saunders, chairman of board, Lithographers National Assn.

On Display Circulation

"It is surprising how many people pass your windows. Macy's claim that 250,000 people pass their windows daily. A report made several years ago, divulged the display circulation of prominently located windows for a six-day period of time by size of cities."

Population of Cities	*Circulation*
Up to 100,000	90%
From 100,000 to 500,000	70%
From 500,000 to 1,000,000	50%
Over 1,000,000	15%

F. W. Spaeth, vice president, W. L. Stensgaard & Associates, Inc.

Sales vs. Circulation

"There is, however, one medium whose value can be measured almost as accurately as that of an individual salesman. That medium is point of purchase advertising. We can install 1000 window displays and tell exactly how effective each was within a few days after its installation. We can tell exactly how many cases of beer each display sold. All that is necessary is a check-up of the sales made by the stores on whose premises the display was installed.

"Because it is so easy to trace sales directly to window displays, I wonder why we should try to complicate this medium. Why should we try to measure it on the basis of circulation when circulation is, as we know, but a theoretical or substitute yardstick? I think the window display study of itself is a fine thing but the thought of applying it in such a way that windows will henceforth be installed on a circulation basis, can be a serious mistake. It seems to me that the chief value of this study lies in the fact that it provides a convincing array of information that undoubtedly proves the value of point of purchase displays as an advertising medium. This information should be particularly helpful to lithographers and display installation houses in selling skeptical buyers on the value of displays.

"Isn't it possible that an over-emphasis of window display circulation will cause us to lose sight of the primary function of displays? Displays are silent salesmen—salesmen that take the place of actual salesmen at the point of purchase. The ideal set-up for us would be to have a salesman assigned to each one of our retail accounts. It would be his job to sell or suggest Ballantine's to every person passing or entering that store. Since, economically, this procedure is impossible, our only recourse is point of purchase displays."

Henry Gorski, advertising manager, P. Ballantine & Sons

On Installation Costs

"Whatever you pay for your display, you have got to get it installed and there you have a very flexible program. If you have your own salesman install it, perhaps this is a low cost method of getting your displays before prospective customers.

"If you send them out indiscriminately to dealers to install, you are inevitably going to have a high cost, due to the enormous waste. And if you employ a competent installation service, you get what you pay for. It may appear to cost more in money, but probably is much cheaper per unit and gets infinitely better results."

Maurice Saunders, chairman of board, Lithographers National Assn.

On "Realism"

"One major development in recent years is a new brand of realism, and when I say 'realism,' I have in mind the attempts at realism which have been made over the past twenty years in window display work. This realism is new, because it takes advantage of new manufacturing techniques and processes.

"In connection with it, it is interesting to note that the general trend in advertising art seems to be away from the old, hackneyed heavy retouching and overaccentuation of certain elements to be forced to the attention of the public."

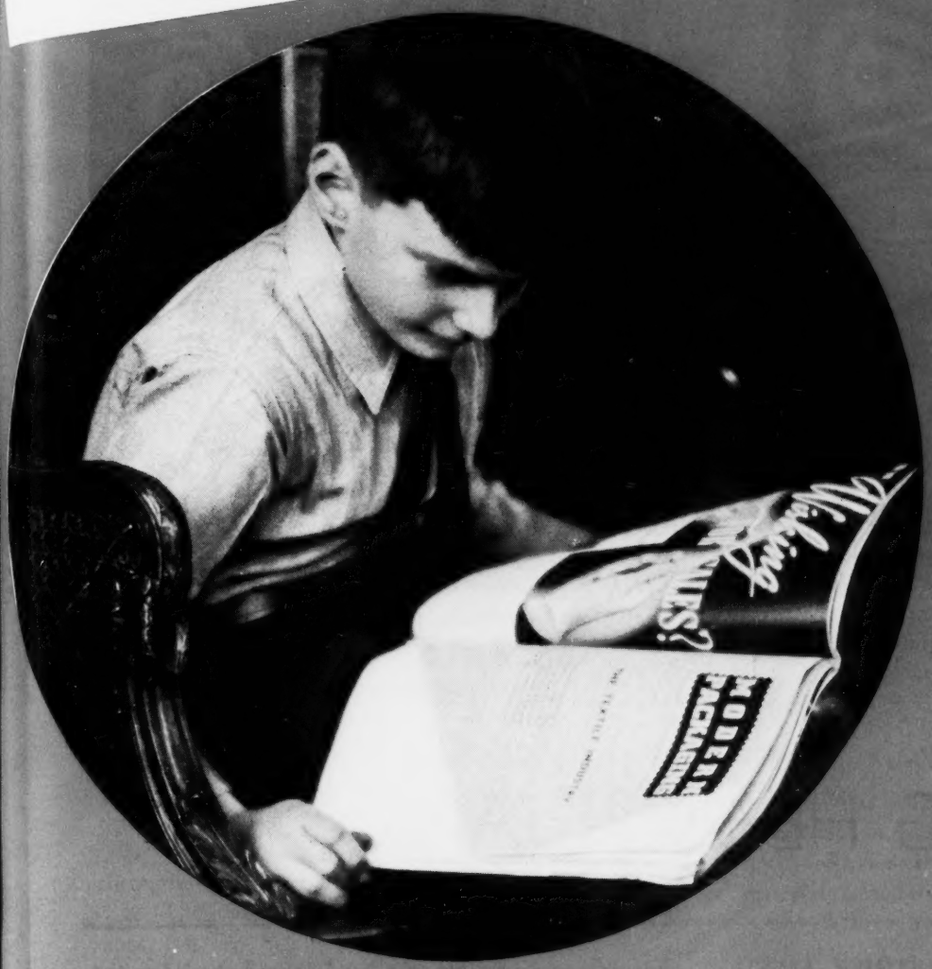
N. J. Leigh, Einson-Freeman Co., Inc.

On Photographic Progress

"The industry in which I serve has made a great deal of progress in the last ten years and I welcome the opportunity, on behalf of lithographers as a whole, to show you the new trend. It is not merely the single shot camera, but it is the dot etching in plate making and the deep etch aluminum offset plates combined which make possible the reproduction I have just shown. And it is important to see, too, that these three applications or improvements in technique are inter-dependent. You can get better results with any one of them. But to get the absolute fidelity which we have been talking about, you really need all three and you must have them integrated by one organization." *(Continued on page 80)*

N. J. Leigh, Einson-Freeman Co., Inc.

FRANK FAIRBANKS, Jr. reads MODERN PACKAGING TOO



Frank, Jr. is eight years old—and a reader of MODERN PACKAGING. And there are thousands of Frank, Jrs. and maybe a few Frances's who would raise merry Ned each month if dad did not bring home that beautiful copy of MODERN PACKAGING that has gotten to be a habit around the house.

Maybe it's the elaborate inserts—maybe it's the beautiful tipons, or maybe even the superb photography that fires little Frank's twentieth century imagination—what difference!

Little Frank, of course, doesn't appear anywhere on MODERN PACKAGING's circulation analysis. He is too young to appreciate the deeper significance and the powerful aid that MODERN PACKAGING is to dad in the office. But, in a few quick-silver years, Frank, Jr.—all the Frank, Jrs. will be sitting in dad's executive chair and then it is going to be your job to sell little Frank. But, it is going to be a much easier job because quite unconsciously, all these years, Frank has been absorbing your messages. More than that, he has been building an acceptance for MODERN PACKAGING—an acceptance that is going to grow and mature during Frank's growing-up years. And, when Frank, Jr. takes over the reins, MODERN PACKAGING will still be reaching him every month, but it won't be just another trade publication—it will still be that big, beautiful, powerful, masterful book that Frank has recognized as outstanding ever since he can remember.

A peculiar message this, possibly, and yet the evidence of this "young readership" has become so powerful, that we can't help but point with pride to the fact that even as MODERN PACKAGING supersedes other conceptions of what an industrial publication can be, so also does it supersede in attention and affections all other reading habits that publications have achieved.

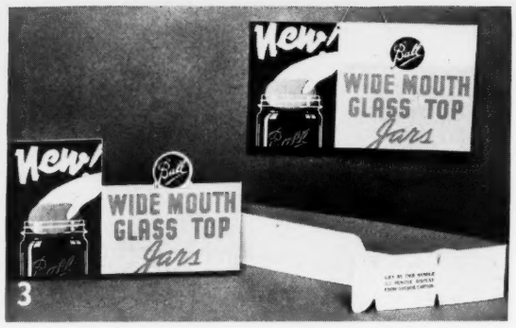
MODERN PACKAGING

published by

BRESKIN AND CHARLTON

PUBLISHING CORPORATION

425 FOURTH AVENUE • NEW YORK



1. The heavy Kraft-lined display container for the Ball Brothers Mason jars represents one of the largest color printed counter display units ever made. **2.** A die-cut and scored band serves as a convenient handle for removing the heavy container from its shipping case. **3.** Both band and two display pieces were cut from portions of the board used in making the principal display that would otherwise have gone to waste. All photographs courtesy of The United States Printing & Lithograph Co.

DISPLAYING HEAVY JARS

IN COMMON WITH MANY ANOTHER MANUfacturer of relatively heavy and bulky products, the Ball Brothers Co. has been confronted with a problem of creating display containers for its Mason jars which could be easily shipped and easily erected in the store. The solution arrived at is particularly interesting since it has involved the utilization of what would have otherwise been waste materials.

The Ball Brothers Co. display container was built to hold a dozen full-quart jars and to measure approximately 16 in. by 12 in. by 7 in. when closed. With the display panel up, an additional 9 in. of height is obtained. The container was therefore made from heavy Kraft-lined board and decorated in brilliant reds, yellows and blues to become one of the largest color printed counter display containers ever fabricated.

The container was shipped in a corrugated box and this, in itself, presented a handling problem. How could the retailer and consumer get the heavily loaded display container out of the corrugated case easily and conveniently, the jars having a net weight of almost 17 lbs.?

The solution was found in the utilization of a strip of board, scored to serve as a band around the large container and so die-cut as to provide a convenient handle for lifting. This strip was cut from the same piece of board on which the carton was printed and it is thus a very simple problem for the dealer to lift the entire container out of its corrugated case without difficulty.

Further utilization of material which would have otherwise gone to waste was achieved through the development of two additional display cards, one a hanger card and the other an easeled display piece.

Thus maximum advantage was taken of the possibility of developing convenience features and merchandising values within the limitations of the original problem of creating a suitable display container. The Ball Brothers Co. achieved these advantages without substantial additional printing or paper expenses and the production of all four units was achieved at the same time, on the same presses and in identical quantities.

The group of units was developed by The United States Printing & Lithograph Co. in cooperation with the Ball Brothers Co. Entire group manufactured by the former organization.

52 CHECKING POINTS FOR THE MACHINE PURCHASER

A LIST SUCH AS THE FOLLOWING WOULD NOT, at first glance, seem to be necessary for either the machinery manufacturer or the packaging production man who purchases machinery. It would seem that every consideration in machinery purchase and installation would come up quite naturally during the period of study prior to purchase and would be carefully covered in the discussions between supplier and machine user.

Yet, in case after case, difficulties have been encountered because points that should have been discussed were omitted from consideration until after machines were built and the troubles caused by the overlooked factors became annoyingly apparent. Hence the checklist which follows, based upon a compilation originally made by Clinton E. Kafka of the National Tea Co., with additions suggested by various machinery manufacturers and production managers.

* * *

Plant Conditions

1. The size of door or opening into building through which the machinery must be moved.
2. The size of the largest available elevator and its maximum load.
3. The load capacity of floors and passageways through which equipment must be moved.
4. The load capacity of the floor at point of installation.
5. Location of obstructions and utilities adjacent to point of installation, i.e., sketches to show trucking aisles, sewer and drain pipes, sprinkler pipes, conduits, air conditioning ducts, important fixtures and other immovable structures.
6. Type of floor and ceiling construction, i.e., data governing method of mounting and fastening machine into position.
7. Nature of provision made for vibration caused by machine.
8. Nature of provision to be made to permit machine to withstand other vibration present at point of installation.
9. Under what conditions will the machine be operated: warm, hot, cold, wet, moist, dry, dusty, clean, quiet, noisy, sticky, etc.?
10. Electrical current available.
11. Local safety law requirements and factory's own safety requirements.
12. Local building and factory laws insofar as they relate to movement of machinery into plant, installation and mounting.
13. Local trade union restrictions, where these exist, regarding trucking machinery, rigging, installing machine and installing accessory plumbing, heating, wiring and similar utilities.
14. Union restrictions relating to work of machinery maker's service men during installation, during training period, during test period or at later dates.
15. Number and size of accessory changeover parts and provision for handling these in the plant.
16. Requirements for special guards or covers to conform with general plant appearance.
17. Limitations on hours of work of installation men, i.e., can they work while plant is operating, can they work at night, will they retard other production, etc.?
18. Space available for uncrating machinery.
19. Availability of additional laborers as required by service men and categories or trades of same. Labor helps available, i.e., lifting machines, jacks, etc.
20. Air pressure requirements.
21. Ceiling heights, hopper heights, etc.

Relations to Adjacent Machines

22. What other machinery will connect up with the installation in question?
23. What method will be used to convey or transfer materials to and from this installation?
24. Will such conveying devices be a part of other machines?
25. Are these machines now installed—to be installed at the same time—to be installed later?
26. What method will be used for supplying materials or conveying supplies to the machine, i.e., particular note should be made of means of conveying and storing an adequate quantity of accessory supplies such as labels, cartons, wraps, etc., adjacent to points of use.
27. Remote controls affecting particular installation or entire line of which machine is a part.

Product Limitations

28. Peculiarities of the product, i.e., variations in size or shape, density, consistency, viscosity, etc.
29. Peculiarities of the package, i.e., variations in package size that may be anticipated. Both outer size and inside volume should be considered.
30. Seasonal peculiarities affecting the above.
31. Varieties of ingredients to be handled.
32. Special requirements as to metals or other materials coming in contact with *(Continued on page 90)*

YOU CAN'T BUY UNPACKAGED HOSE

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NOT QUITE TRUE, AS YET, IS THE TITLE OF this article. But rapidly becoming true, as one company after another discovers new advantages in the packaging of even so unlikely an item as garden hose.

Exactly who started the parade is hard to say. Nor can it clearly be seen just why the parade didn't start decades ago. For packaged hose is logical from every point of view . . . it makes for easier shipment to the dealer, it protects the product on its way toward the consumer, it provides display values otherwise unattainable and it makes the carrying problem a far easier one.

Interesting, too, as a demonstration of the varying results achieved when widely separated groups of designers and manufacturers attack the same problem at the same time, are the different qualities built into the containers for these essentially identical products.

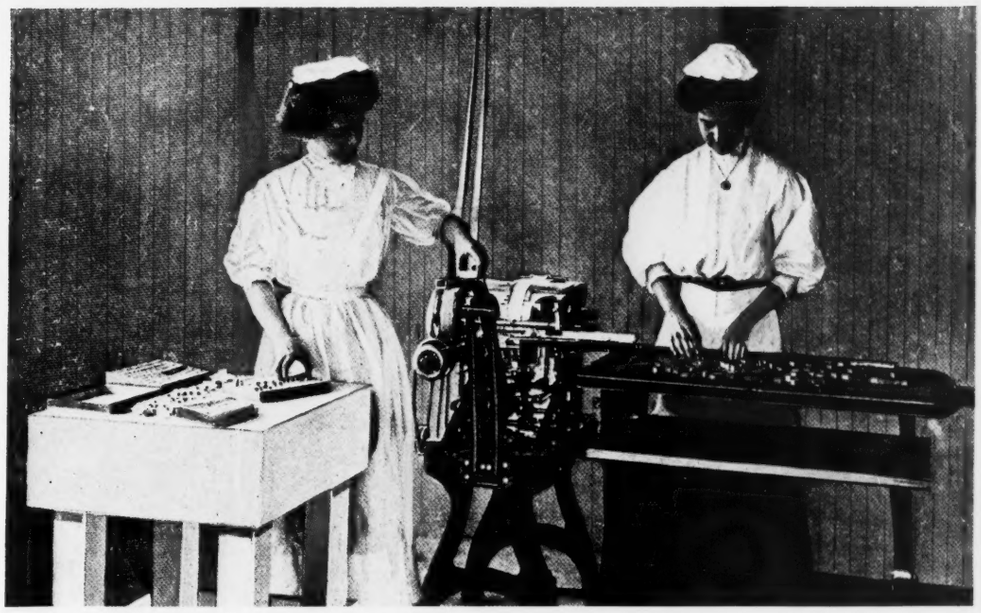
One supplier has provided four die-cut holes around the face of his package, serving both as windows through which the hose may be seen and as carrying handles. Another uses a break-back face-panel to permit the packages to be used as a display. A third uses a Metal Edge box equipped with a single hand grip for carrying, so positioned as to make the display decoration serve as a walking billboard while the product is being carried to the home. The fourth manufacturer, whose package won All-America honors in the Shipping Container group, utilizes a two-piece, folding, corrugated container of octagonal shape with a square center hole serving as the carry-hold.

Decorative treatments vary almost as much as do constructions. Both Goodyear and Goodrich have adopted a colorful flower motif. U. S. Rubber Products, Inc., uses a pictorial presentation showing both hose-in-use and a garden, while the Boston Woven Hose and Rubber Co. places emphasis on brand names.

This last firm offered its hose to retailers packaged in the traditional spiral-wound paper coil and in these new containers, leaving the choice to the dealer without surcharge or penalty on either type. The company reports, "The vast majority of our garden hose orders have specified the new containers which seem to have gone over with a bang."

4

1. Container Corporation's folding cartons for Boston Woven Hose & Rubber Co. **2.** Hinde & Dauch produced this break-back display designed by Goodyear. **3.** A Metal Edge box is used by U. S. Rubber Products, Inc. **4.** An All-America prize-winner, the Goodrich box was produced by Inland Container Corp., utilizing the Continental Color process.



It took two maidens, dressed up like trained nurses, to tend this Package Machinery Co. wrapping machine of 25 years ago.

TWENTY-FIVE YEARS OF SERVICE

PACKAGE MACHINERY MANUFACTURERS, AS A group, have accomplished so much and done it so quietly that few of us realize how young the industry really is. We take the almost miraculous automatic machines they produce very much for granted—forgetting that even twenty years ago today's accomplishments would have seemed like a Utopian dream.

If the Package Machinery Co. were today celebrating its 50th anniversary, the occasion would therefore seem more in line with its accomplishments. But the stripling is only a quarter of a century old, for in 1913 the company was founded as a consolidation of five small wrapping machine manufacturers.

Space does not permit a detailed recital of the progress which 25 years have shown in the development of packaging machinery. Perhaps a typical example will best serve to illustrate the point. The original machines manufactured for the chewing gum industry had a speed of some 50 to 75 wrapped sticks per minute. Modern machines, performing more intricate operations, such as wax sealing of foil, registering and over-wrapping of printed cellophane and the insertion of an easy-opening tape, operate at a rate of 600 sticks per minute!

Obviously the Package Machinery Co., like many others, has played a major part in the elimination of hand labor. Yet, on balance, it has probably created more labor opportunities in its 25-year career than it has destroyed. For without automatic wrapping machinery literally hundreds of products now widely sold could not have been marketed at all in sufficient volume without the low costs made possible by high speed machines.

In the city of Springfield, the company has grown to occupy a position of increasing importance. Its 1913 staff of 37 now numbers over 300, including an engineering and research department of over 40. Its president, Roger L. Putnam, who joined the company in 1919, has been drafted, since the Fall of 1937, to serve as the Mayor of Springfield, Mass.

Today, after 25 years of continuous—and, to those who do not know the industry, amazing—growth, the firm's machines are to be found in batteries of from one to several hundred in major plants throughout the civilized world. At present it produces 78 different types of wrapping and packaging machines, meeting the requirements of almost every type of industry and thus, in a young and growing industry, it celebrates its 25th anniversary with a record of consistent inventive progress quite as noteworthy for its future promise as for its past accomplishments in the field.

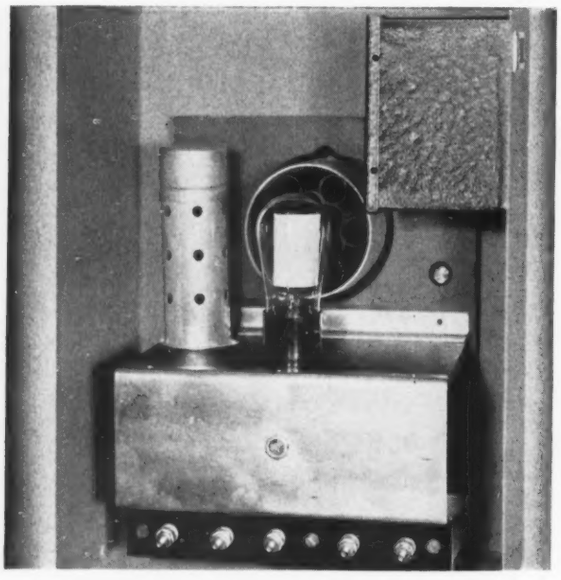
Equipment and Materials

NEW DEVELOPMENTS IN PACKAGING MACHINERY METHODS AND SUPPLIES

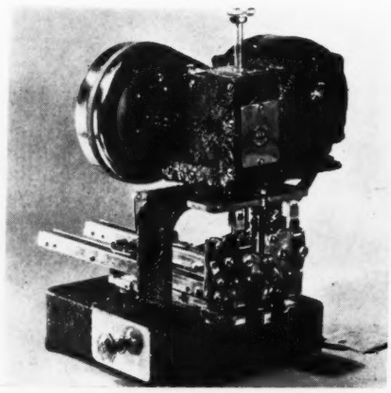
PHOTO-ELECTRIC COUNTER UNIT

Wayne Automatic Relay Co. has announced the development of a new type of photo-electric counter unit embodying a radical departure from previous types in that it uses a standard, mill type lamp. This eliminates the necessity for the use of a specially constructed light source or one that requires focusing adjustments and, it is claimed, reduces the frequency of lamp renewals.

The unit is wholly self-contained within a steel cabinet. An ingenious light louver system excludes all extraneous lights and a highly corrected condensing lens directs the full light energy upon the photo-cell. Atop the steel cabinet is an amber light that signals each step of the counting cylinder and thereby protects the unit against either non-operation or malicious tampering. Some plants cover a small section of the conveyor, it is reported, as an added protection, placing the counter midway on the covered section. The hinged cover of the counter cabinet has provision for locking the reset feature of the counter. The unit operates on 110 volt, AC or DC current supply. Three-quarters of an inch separation of parts to be counted is sufficient to actuate the counter units, permitting the light beam to pass through and then be once again interrupted.



New type of photo-electric counter unit.



Peerless automatic stapling machine.

AUTOMATIC STAPLER

A new automatic stapling machine for closing cellophane, glassine or ordinary kraft bags by means of staples has been developed by the Peerless Automatic Stapler Co.

Skilled operators, it is claimed, can close in excess of 2000 bags per hour with this equipment. The machine attaches a tag, if desired, with two standard staples and may be so set up as to punch a hole in the bag to permit hanging for display purposes. The unit consists of three stapler heads which may be set at any desired position in relation to each other into the base of the machine. These may be easily removed for re-loading and each is equipped with a staple reservoir approximately 1-ft. in length. A punching head may be substituted for any one of the stapler heads when desired.

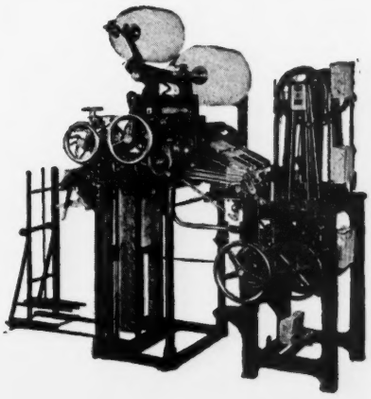
A hand lever is located at the left hand corner of the base and the operator depresses this with the heel of her hand, while holding the bag to be stapled in position. Depressing this lever causes the constant speed $1/20$ hp. motor to actuate a plate located immediately above the stapler heads, depressing these heads and causing the staples to hold. The machine will complete one operation each time the lever is depressed, irrespective of the length of time for which it is held down or of the pressure applied. If so desired, a switch is provided which adjusts the device to repetition action for as long as the lever is held down. The unit is portable, of sturdy construction and may be plugged into any convenient light socket The device requires no permanent anchorage and may be placed on any work table. Standard types of staples may be used.

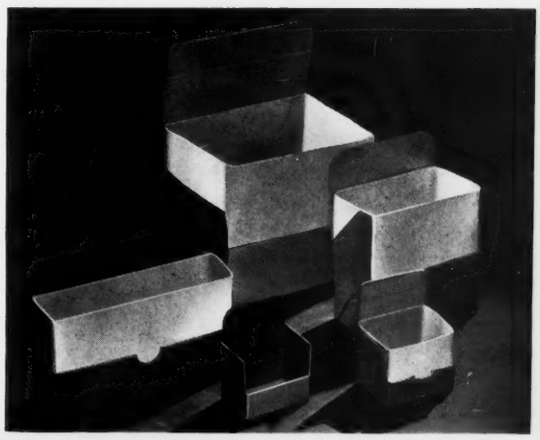
IF YOURS IS A CARTON PACKAGING PROBLEM . . . INVESTIGATE

PETERS packaging MACHINES

To SET UP Cartons . . .

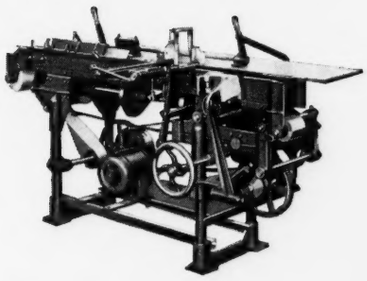
This fully automatic machine sets up 55-60 cartons per minute. Smaller, adjustable model machine available to set up 30-40 cartons per minute. Liner, if used, is automatically folded in the carton.



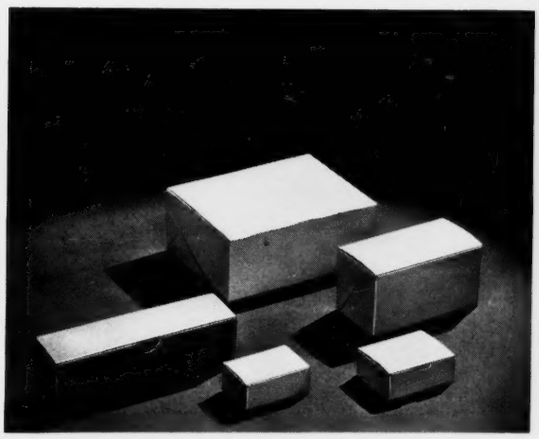


Appearance of cartons after being set up on PETERS CARTON FORMING AND LINING MACHINE.

To CLOSE Cartons...



This fully automatic machine closes 55-60 cartons per minute after being filled. Smaller, adjustable model machine available to close 30-40 cartons per minute.



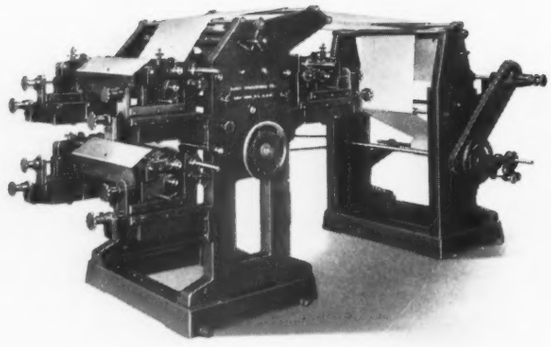
Appearance of cartons after being closed on PETERS CARTON FOLDING AND CLOSING MACHINE.

Packaging Experts who know economy and efficiency recommend PETERS Equipment.

Send us samples of your cartons or the sizes of cartons you are interested in setting up and closing and ask us to recommend machines to meet your requirements. You will receive a prompt reply.

PETERS MACHINERY COMPANY

4700 RAVENSWOOD AVE. CHICAGO, ILL.



Multicolor aniline web printing machine.

HIGH SPEED MULTICOLOR ANILINE PRINTING

The Haida Engineering Co. has announced the development of a new high speed, multicolor aniline web printing machine for the decoration of paper, cellophane, glassine, foil, cloth and similar materials available in roll form. The machine utilizes inexpensive rubber printing plates with adhesive backing and, it is claimed, requires very little make-ready.

Final register of each color up and down the web and sideways is obtained by turning knobs on the side of the machine. This can be done while the machine is in test operation.

The printing length of the machine, i.e., the distance between "repeat" points, can be varied by changing the type of cylinders, the machine's range being from 6 in. to 30 in. If two or more printing plates are used, the printing length is, of course, divided by the number of plates. The machine is manufactured in the following working widths: 12 in., 18 in., 24 in., 30 in., 36 in., 42 in. and 48 in.

The machine is so constructed as to permit its equipment on installation with one color unit and a second, third and fourth color unit can be added at a later date.

A re-wind stand which also holds the mill roll is supplied as a self-contained unit, connected to the printer by a heavy roller chain. The winder is designed to hold a mill roll up to 33 in. in diameter and is equipped with a friction brake and side adjustment of the mill roll. An adjustment is also provided for taking up slack on one side of the web. The re-winder is also equipped with a wrinkle eliminator which helps eliminate wrinkles so often found in light weight materials. A ball bearing equipped friction clutch drives the re-wind unit and may be adjusted to any desired tension. The 48-in. printer is equipped with a double friction clutch.

NEW DISPLAY PAPER

Bamboo display paper, a new pliable paper-board reproduction utilizing a bamboo pole repeating design, has been developed by Nalco, Inc. The material is available in roll form, 48 in. high by 25 in. long, so designed that sections can be matched to obtain any given height or length. Each roll is packed individually.

ODOR ELIMINATOR

The Consolidated Air Conditioning Division of W. B. Connor Engineering Corp. has announced the development of a series of new type odor adsorbers, utilizing activated carbon in specially prepared canisters, to eliminate objectionable odors in factory rooms.

The unit, it is claimed, works on the principle of the army gas mask. It actually removes odors from contaminated air as it passes through a bed of granular activated coconut shell carbon. The carbon is held between the shells of an inner and outer cylinder which, together, form the odor-removing canister. These canisters are placed in the ducts of air conditioning or ventilating systems in such manner as to insure the passage of air through the canister in the process of movement through the ducts.

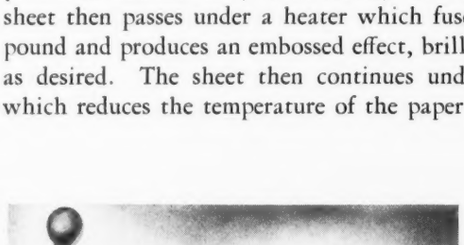
Each canister is approximately $10^1/_2$ in. long and, the company reports, may be expected to give effective service for some three to five years depending upon the concentration of odors and the quantity of air passed.

AUTOMATIC EMBOSSING DEVICE

The Domore automatic process embosser, designed to handle a wide variety of embossing work, has been placed on the market by Wood, Nathan & Virkus Co., Inc. The machine, it is claimed, will handle all ordinary papers including parchment and deckle-edge stock. The thickness range of the instrument runs as high as 30 point stock, with special adjustments to permit the handling of heavier materials.

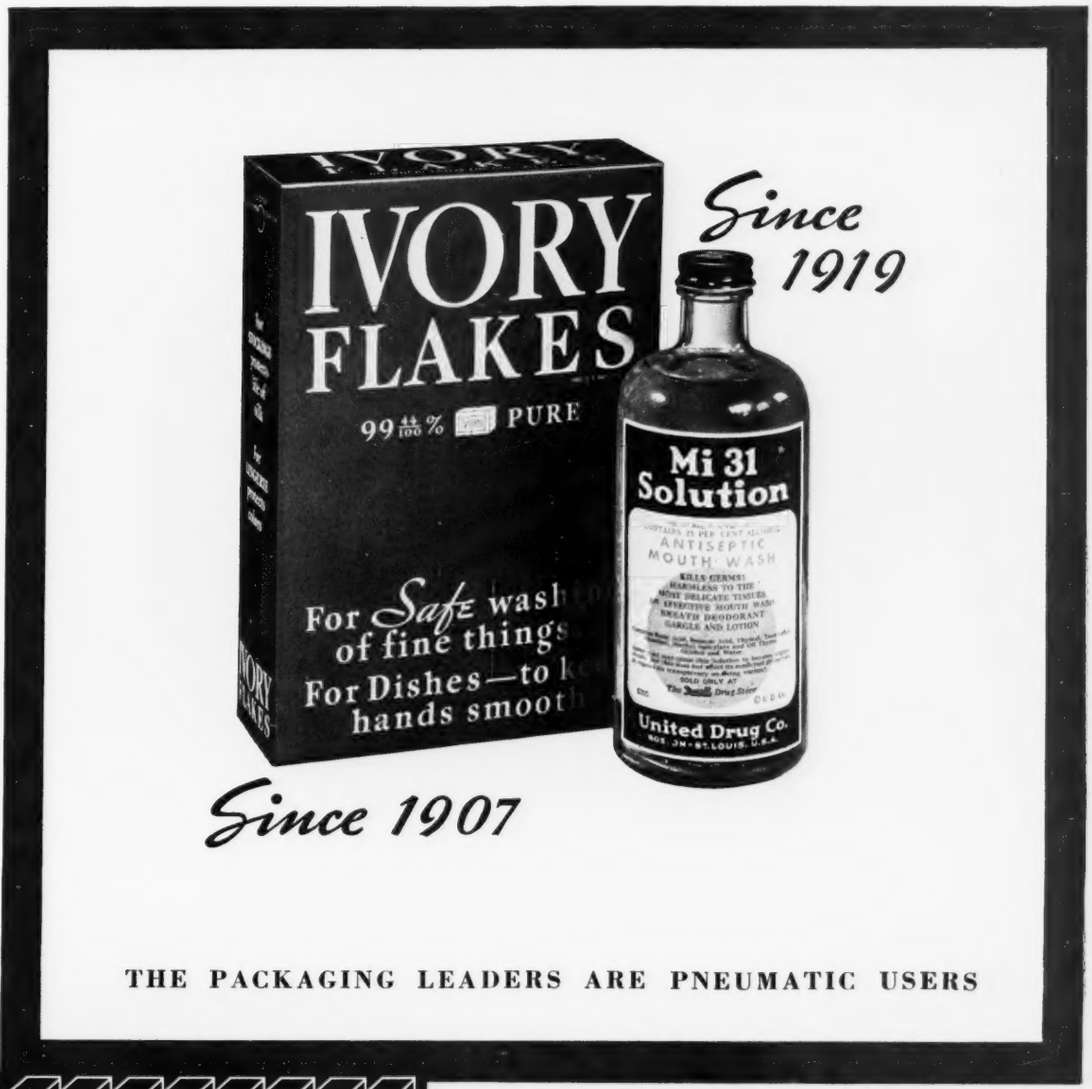
The machine is designed for use in conjunction with printing presses, freshly printed sheets continuing from the press through the embossing unit without stopping. Regular type or cuts are used, neither dies nor plates being necessary. The embossed effects may be in any color of printer's ink or in gold, silver or white and dull effects, similar to engraving, can likewise be achieved.

Through the use of this machine, it is claimed, the freshly printed sheets are automatically covered with Virkotype Compound or powder. The surplus compound is automatically removed by vacuum and the sheet then passes under a heater which fuses the compound and produces an embossed effect, brilliant or dull as desired. The sheet then continues under a cooler which reduces the temperature of the paper to normal.



Domore automatic process embosser.

PROCTER AND GAMBLE purchased their first Pneumatic unit back in 1907, have remained an active Pneumatic customer, buying over 350 other machines since that time for the packaging of their famed Oxydol, Ivory Flakes and other products. UNITED DRUG started with Pneumatic in 1919, have purchased repeatedly since, to the tune of 30 other machines. Only satisfactory performance could have prompted such steady loyalty to Pneumatic by these two leading producers of packaged and bottled products.



THE PACKAGING LEADERS ARE PNEUMATIC USERS

PNEUMATIC
PACKAGING & BOTTLING EQUIPMENT

LOWER COST
PER
CONTAINER

PNEUMATIC SCALE CORPORATION, LTD.
71 Newport Ave., Quincy, Mass. (Norfolk Downs Station)
Branch Offices in New York; Chicago; San Francisco; Los Angeles; Leeds, England; Paris; Melbourne; Sydney, N. S. W.; Wellington; and Buenos Aires

CABINET SQUARES—NEW STOCK BOTTLES

The Maryland Glass Corp. has developed a new type of stock container available in 1-, 2-, 2 1/2-, 4-, 8-, 16- and 32-oz. sizes and designated as "Cabinet Squares." The name suggests the application since these bottles are particularly designed for products which would receive home storage in a medicine cabinet. They are shorter and more compact than the usual container and designed to fill the full depth of the average medicine cabinet so the bottles may be arranged in a single row with labels always visible at the front.

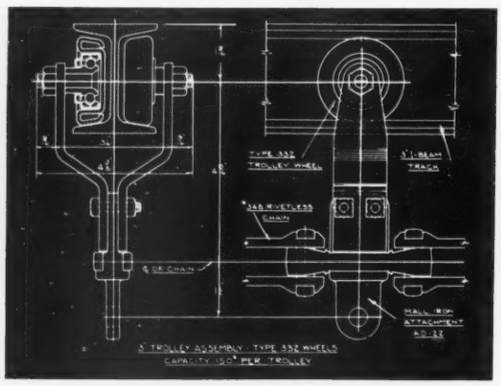
A standard continuous thread finish, G.C.A.400, is used, and the maker will supply black shell caps from stock if desired. The bottle, it is claimed, is extremely easy to grip and to pour from.

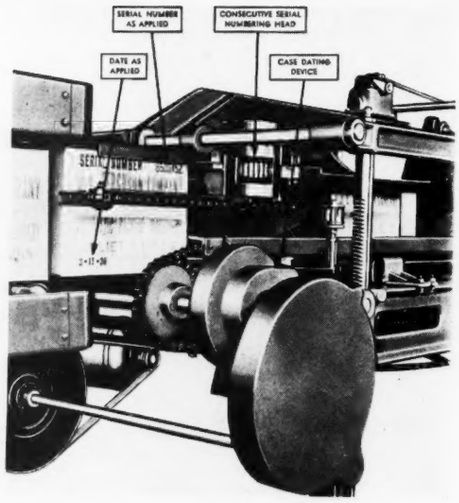
The new Cabinet Square bottle of the Maryland Glass Corp. is designed to increase the capacity of the medicine cabinet and to eliminate stacking of double rows of bottles on the shelf.

LIGHT DUTY OVERHEAD TROLLEY

A new all-purpose anti-friction trolley has been developed, by the Mathews Conveyer Co., which is suitable for use with the endless chain power-operated type of trolley conveyors or as individual trolleys manually operated. The outer shell of the unit is made of 1/8 in. steel, case hardened. Ball bearings, which incorporate a patented seal composed of a steel and felt labyrinth, are self contained and are furnished "grease-packed" or without lubrication, as desired. Inner and outer ball races are of solid steel, enclosed within a steel jacket.

The capacity of the new trolley is claimed to be 150 lbs. Conveyors utilizing trolleys of this type are made to carry unit loads overhead at the ceiling, descending to working heights at pre-determined points.





Close-up showing detail of serial numbering and dating devices as installed on Ferguson case sealing and gluing unit.

SERIAL NUMBERING MACHINE

A serial numbering unit for attachment to its case sealers and gluers has been developed by the J. L. Ferguson Company. The unit imprints a number automatically on cases while these are in motion through the gluers. Characters are 3/4 of an inch high. The device imprints numbers consecutively up to 999,999, inclusive. It also imprints a letter preceding the number to identify the production line. The number is actuated by positive control tripped by the moving case. Each supply is automatically fed to the center of the marking roll. The unit is mounted on the case guide rail of the case sealing and gluing machine and thus automatically adjusted with the gluer when the size of cases change.

Marking disks are made of steel with engraved numbers and thus, it is claimed, insure a clean imprint and positive operation.

A separate unit for dating cases is also furnished with either 3/8 or 1/2 inch high characters. This unit makes its imprint approximately 1 1/4 inches from the bottom of the case, utilizing rubber numerals or letter stamps inserted, each day, into a marking roll. The ink supply is automatically fed from a glass retainer.

COLOR MATCHING LAMP

The Barkon-Frink Tube Lighting Corp., New York, is marketing a new series of bench model carbon dioxide daylight lamps for use in matching colors, known as series F. These units are smaller than the company's series A, B and C and are designed for use where the installation of larger models would be impractical.

They provide, it is claimed, an unchanging source of artificial daylight. The lighting units are guaranteed for 5000 hours and differ from incandescent and the gaseous discharge types in that a continuous supply of fresh gas, accomplished by a patented device, insures that the qual-

Do You Know

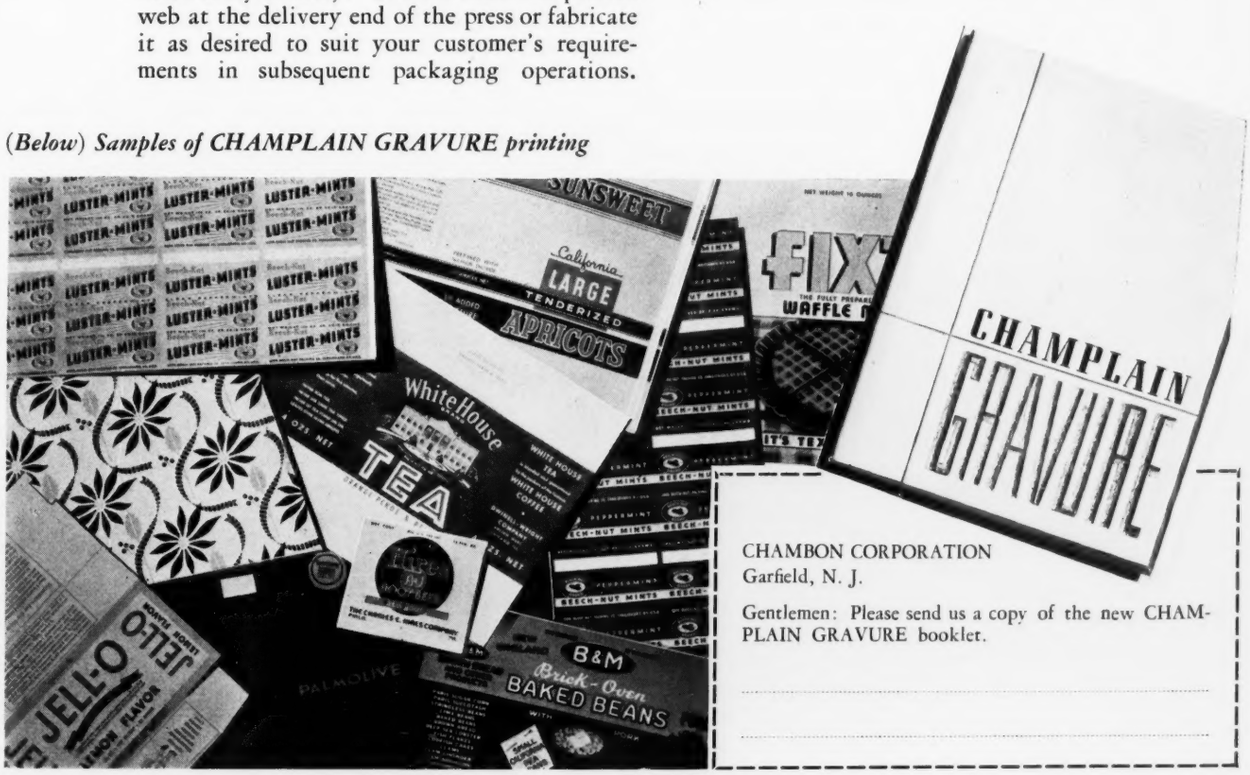
that the CHAMPLAIN GRAVURE PRESS may revolutionize package printing?

The new CHAMPLAIN GRAVURE PRESS represents a new departure in gravure press design. It is an entirely new concept of gravure and its possibilities in the field of package printing.

With this advanced type of printing machine you can produce forms as large as 42″ x 40″ to as small as 10″ x 12″ and all sizes in between. You can change over completely from one job to another in an incredibly short time—about one half hour per color change. You can print at web speeds of 350 to 500 feet per minute. You can print on all kinds of paper, board, and other materials, reproducing the finest detail and photographic effects with startling fidelity to the original copy. You can use the new fast drying gravure inks. You can eliminate plate make-ready entirely. You can sheet the printed web at the delivery end of the press or fabricate it as desired to suit your customer's requirements in subsequent packaging operations.

The new CHAMPLAIN GRAVURE PRESS is the most flexible rotary press ever built. It was designed to provide printers with a high speed press suitable for producing the finest type of package and specialty printing. To printers sending samples of the kind of work they are doing we shall be glad to submit full information and a quotation. If you are a buyer of printing we shall be glad to send full details to your printer. A copy of our new booklet is available on request.

(*Below*) *Samples of CHAMPLAIN GRAVURE printing*



CHAMBON CORPORATION
Garfield, N. J.

Gentlemen: Please send us a copy of the new CHAMPLAIN GRAVURE booklet.

.....

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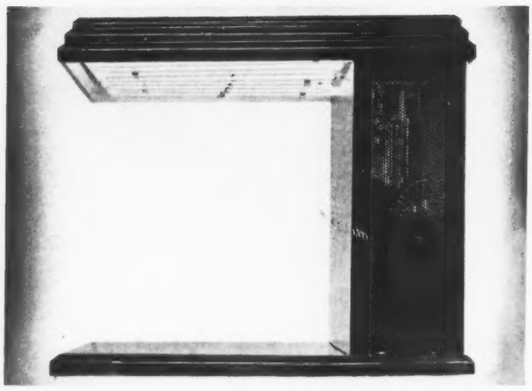


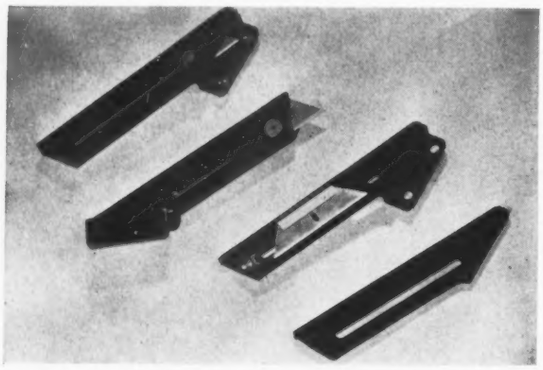
Bench model carbon dioxide daylight lamp.

ity or chromaticity of the carbon dioxide radiation remains unchanged throughout the life of the tube.

The lamps of the model F series are mounted on a white porcelain enameled reflector which is, in turn, secured in a sturdy steel case, the dimensions being 22 in. in length, 12 in. in width and 18 in. in height. Auxiliary transformer equipment is mounted in a separate cabinet and can be located at a nearby convenient spot. Three units of 250-, 425- and 625-watt capacity comprise the series and provide, respectively, 40, 80 and 125 foot candles of light at a normal working distance from the grid.

TU-WAY CUTTER

The Morskill Company has developed a new hand cutting unit especially adapted for use in opening corrugated, fibre and cardboard containers. The device consists of a two-piece molded Resinox handle, equipped with a channel into which a specially designed blade is inserted. A molded guide strip permits the user to hold the blade at an even distance from the edge of a case at top or side. When slid to the other end, the cutter may be used as a general utility tool, permitting curved or diagonal cuts as desired. The blade may also be placed in a non-cutting position at the center of its slotted groove and the unit may then be carried in the pocket in complete safety. A thumbscrew permits locking of blade in any position.

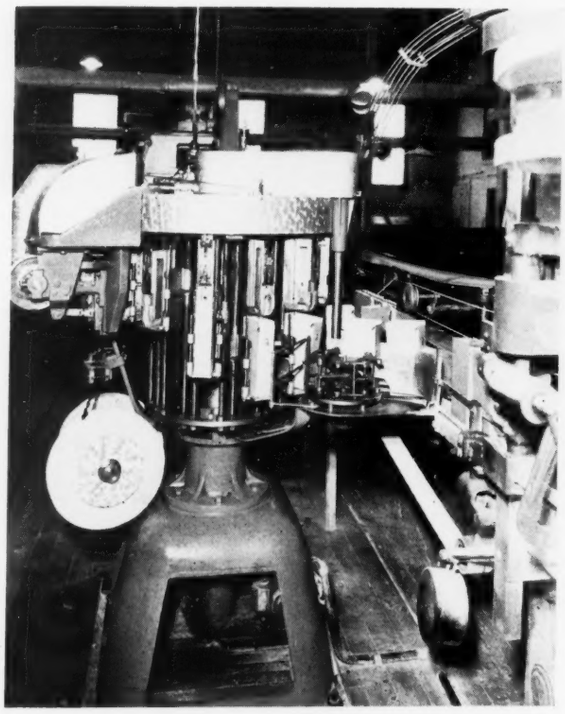


Reading from top down the cutter is shown with blade in position next to guide, with blade in "free-cutting" position and with blade (centered) for safe pocket carrying. In the last instance the molded Resinox handle has been removed.

"ELECTRO-SHEET" COPPER

The American Brass Co. has recently placed on the market a new product known as "Electro-Sheet" copper. This material is pure copper sheeting, non-porous, non-rustable and can be obtained in weights ranging from 1 oz. (.0013 in.) to 5 ozs. (.0067 in.) per sq. ft. and in widths of 30 in. or 60 in. The company reports that the material may find application in the packaging fields in use as labels, seals, stickers, liners, etc.

"Electro-Sheet" copper may be furnished in rolls up to a maximum length of 2400 ft. in the 30-in. width and special widths may be prepared where demand justifies it. The material, it is claimed, readily accepts printing, embossing and other decorating processes.



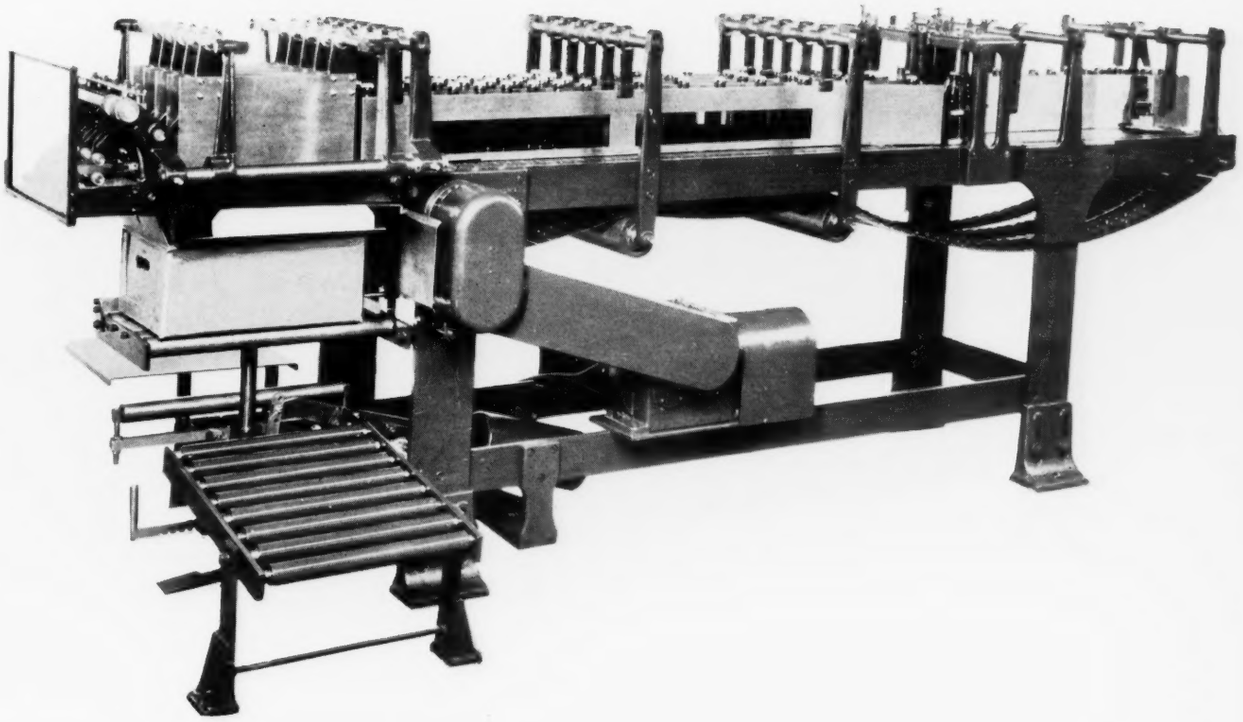
Spout inserting machine is here shown in action. Note the precut aluminum strip feeding from thereel at lower left.

AUTOMATIC SPOUT INSERTING MACHINE

A new and completely automatic machine for inserting aluminum "Seal-Spouts" into cartons has been developed by the American Aluminum Ware Co. The unit is designed to hook up with the cartoning or packaging line just prior to the point of filling. The machine picks up the carton, inserts the pouring spout automatically and places same back again on the conveyor for transfer to the filling device.

The spouts are furnished on reels, partly manufactured and the machine completes the final operation at a speed of from 40 to 90 per minute. The units are not sold, but are leased on a royalty basis.

The NEW STANDARD-KNAPP BOTTLE PACKER



Automatically Packs All Bottles into Corrugated, Fibre or Wooden Cases

Receives the bottles from either one or two labelers and automatically inserts them, into the partition cells in corrugated, fibre or wooden cases. The labels are protected at all times. The filled case is automatically discharged onto conveyor. *One operator only is required*

Most of the largest breweries in the country, as well as a large number of smaller ones, have adopted Standard-Knapp Bottle Packers as standard equipment on all of their bottling lines.

Let our engineering department make a survey of your bottle packing requirements and submit a layout.

STANDARD-KNAPP CORPORATION

MANUFACTURERS OF CASE SEALING, CASE PACKAGING, AND CAN LABELING MACHINES

43-27 32nd PL., LONG ISLAND CITY, N. Y.
208 W. Washington Street, CHICAGO
1001 Society for Sav. Bldg., CLEVELAND
909 Western Ave., SEATTLE
420 S. San Pedro St., LOS ANGELES
300 Seventh Street, SAN FRANCISCO
315 South West Pine Street, PORTLAND, OREGON
Windsor House, Victoria St., LONDON, ENGLAND

FOR YOUR *information* FILE

Unless otherwise indicated, copies of catalogs, booklets, etc., mentioned in this department may be obtained without charge by writing to the sponsoring company at the address given.

"FOR PROPERLY SEALED PAPER SHIPPING CASES" is the title of a folder issued by the J. L. Ferguson Co., Joliet, Ill. The brochure illustrates and describes container sealing, boxing and serial numbering equipment and offers complete specifications.

A NEW EDITION of the booklet, "The Versatile Service of Bakelite Plastics" has been published by the Bakelite Corp., New York. The 16-page booklet tells the history of modern plastics, what they are and how they are used, from the time of their discovery by Dr. L. H. Baekeland up to the present day. Copies are available upon request.

"FOR GREATER SAFETY" is the name of a new circular issued by the Lewis-Shepard Co., Watertown, Mass., manufacturers of material handling equipment. The circular shows many ways of introducing safety in indoor transportation of materials which helps to eliminate minor as well as major injuries.

NATIONAL ADHESIVES CORP., New York, has issued a new brochure titled "This Business of Sealing Cases." The folder suggests remedies for the various difficulties met in sealing special types of cases which should prove of special interest to plant superintendents and packaging production executives.

BOONTON MOLDING CO., Boonton, N. J., has published a revised edition of its "Ready Reference for Plastics." The booklet contains 40 pages of technical information covering the commonly used plastics together with engineering and production information for use in material selection and molding procedure.

"PHARMACEUTICAL EQUIPMENT," a catalog issued by the F. J. Stokes Machine Co., Philadelphia, Pa., describes and illustrates the various types of machinery for tube, jar and powder filling, tablet making and tablet machines, water stills and other pharmaceutical equipment. Specifications and detailed descriptions are comprehensively listed.

PALMER-BEE CO., Detroit, Mich., has issued a 96-page Roller Conveyor catalog describing, illustrating and pricing its commercial ball bearing line, its precision tapered roller bearing line and its precision ball bearing line. The booklet, termed an "Engineers' Hand Book," includes data on bearing capacity, roller deflection and roller selection charts designed to enable the user to make a balanced selection of bearings, tubes and frame rails.

THE TUTTLE PRESS CO., Appleton, Wis., has issued a new catalog of Christmas papers printed in water colors and in oil inks and including tissues, cellophanes and in various weights and types of paper. The items are available for retail re-sale or in counter rolls or reams for use by retailers and manufacturers.

"LET ME TELL YOU ABOUT MACHINE TOOLS" is the title of an interesting booklet recently published by the National Machine Tool Builders Assn., Cleveland, Ohio. The profusely illustrated brochure tells, in simple, popular terms, the story of machines that make machines and the history of their development. Copies are available on request.

HOW TO LOAD CORRUGATED SHIPPING BOXES, the fifth in a series of packaging handbooks published by The Hinde & Dauch Paper Co., Sandusky, Ohio, details information as to loading freight shipments in carload lots. Material, compiled either from actual experiences of large shippers or furnished by recognized authorities, is illustrated with pen and ink sketches.

THE HARRIS-SEYBOLD-POTTER CO., Cleveland, Ohio, has issued a new illustrated brochure entitled, "Features That Give Dominance to Harris Presses." The booklet lists and describes the advantages claimed for the Harris color group of eight offset presses, ranging from two, three and four color offset presses.

PACKAGE MACHINERY CO., Springfield, Mass., has issued a folder on its 25th anniversary which details the progress made from 1913 to 1938 in packaging and wrapping machinery.

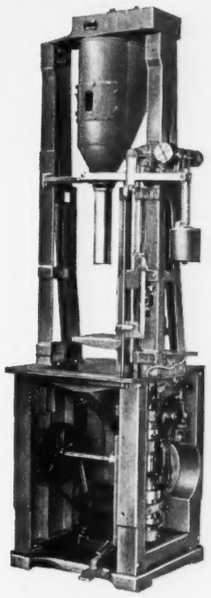
THE QUALITIES OF LUMARITH (Protectoid) as a transparent packaging material are concisely outlined in a new brochure, "Ceiling Zero," issued by the Celluloid Corp., New York, N. Y.

"SHAKE OFF THESE TWO DRAGGING SHACKLES," a new brochure issued by the Aluminum Seal Co., New Kensington, Pa., details and illustrates proper glass jar closures as contrasted with the inefficient and hard-to-open type of closures.

FORBES LITHOGRAPH CO., Boston, Mass., has issued a brochure entitled "23 Uses for Package Inserts" which is available on request.

FILLING MACHINES

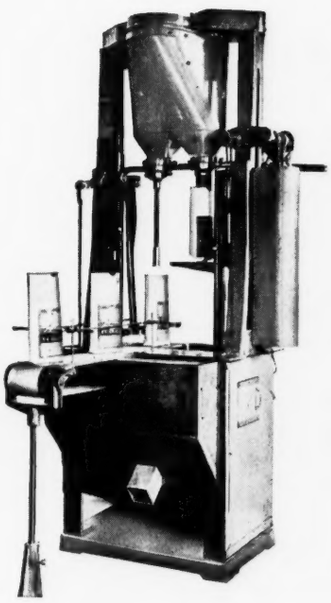
SINGLE STATION PACKER



FOR packing various types of containers, bags, cans, cartridges, etc. This machine firmly packs the container with the proper quantity at a uniform density and a minimum amount of work for the operator. The machine can also be used for pastes—total pressure of packing may be 120 lbs. or 340 lbs.

For Insecticides, Chemicals, Flour or Cereals up to 25 lbs. in weight in bags or other containers

DUPLEX PACKER AND WEIGHER



WHEN a fine accuracy of weight is required in addition to the packing or crowding of the material into the container, the Duplex Packer and Weigher is indicated. The material is packed at the first station and is gross weighed at the second station.

Let us consider your filling and packing problems. These are but two of the many models of packaging equipment which we manufacture. Write us what you wish to accomplish and we will specify in detail the machine best suited for your work.

STOKES & SMITH Co

PACKAGING MACHINERY — PAPER BOX MACHINERY

Frankford, Philadelphia, U. S. A.

FILM AND EXHIBIT ITINERARY

"Over the Counter and Off the Shelf," the MODERN PACKAGING movie in full color and sound, and the traveling exhibits of the 1937 All-America prize-winners are continuing an itinerary that will bring them, before the year's end, to every major industrial center in the United States and Canada.

Following is the list of bookings for the latter part of June and for the months of July and August—necessarily incomplete as additional bookings are being added almost daily. Interested parties are advised to contact individuals named as sponsors for admission to showings.

Date	Place	Sponsor
June 20	Tampa, Fla.	Tampa Adv. Club. J. H. Hampton. Film only.
June 21	Des Moines, Iowa	Des Moines Advertising Club. G. W. Fitch. Film only.
June 21	Boston, Mass.	Sales meeting of Forbes Lithograph Mfg. Co. Ralph Thomas. Film only.
June 24	Washington, D. C.	International Association of Display Men Convention. S. C. Rieser. Film and exhibit.
June 26	Seattle, Wash.	College of Economics and Business, Univ. of Washington. Henry A. Burd. Film only.
June 27	Seattle, Wash.	Advertising & Sales Club of Seattle. Kay Caldwell. Film only.
July 11–13	San Francisco, Calif.	Pacific Coast Paper Box Manufacturers Association Convention. Hugh Peat. Film only.
July 12	Shreveport, La.	Advertising Club of Shreveport. F. C. Beseler. Film only.
July 15–Aug. 25	Clemson, S. C.	Cooperative Extension Work in Agriculture and Home Economics, State of South Carolina. Thos. W. Morgan. Film only.

THE CELLULOID CORP., New York, has issued an elaborate "reference file" book under the title of "Lumarith Library of Color," listing and describing many hundreds of color shades available in Lumarith materials. The brochure should prove of particular interest to industrial designers and industrial users of compression, injection or transfer molded Lumarith plastics. The "reference file" is in loose leaf form, permitting additions with further color trends or in the introduction of new color shades.

The company has also issued a very thorough "Lumarith Manual of Molding," detailing the technique of working Lumarith material, a technique which has undergone marked changes within the past six months. To cite a single instance, recent improvements in molding methods have reduced the molding cycle from 20 per cent to 50 per cent and it is claimed have, at the same time, showed greater strength for the molded articles. Intended primarily for the use of the molder, the volume likewise in loose leaf form, should prove of value to large users of molding and to industrial designers.

CANADIAN TRADE INDEX for 1938 has been recently issued by the Canadian Manufacturers' Association, Inc., of Toronto, and represents the most complete and up to date listing and directory of manufacturers, shippers and exporters in the Dominion of Canada available to the general public.

The volume is the 38th annual of this type and provides an alphabetical list of all manufacturers in Canada with addresses, branches, exports, representatives, trade marks, brands, etc. Another section contains a directory of all Canadian manufacturers classified according to articles made and a third section offers a directory of purchasers, shippers and exporters of agricultural produce and allied lines.

To assist buyers in other countries, oversea representatives of Canadian manufacturers have been listed and special French and Spanish sections have been added. A special export section provides a complete and detailed statistical analysis of Canadian export industry and should afford the reader a very substantial introduction to all those facts necessary to a knowledge of trade customs necessary in dealing with Canadian firms.

Thus the volume should prove of particular value to manufacturers in the United States and in other countries desiring to market their produce in Canada as well as to importers abroad who may wish to locate Canadian sources of supply for agricultural produce, raw materials and manufactured goods.

A BUYER'S GUIDE AND CYCLOPAEDIA, of the soap, perfumery and cosmetic industries, for the year 1938, has been issued by Soap, Perfumery and Cosmetics, Ltd., London, England.

The volume corresponds, both in its editorial and its directory sections, to similar annuals published in this country and should afford firms, interested in the British markets within these industries or in the purchase of British soap, perfumery or cosmetic supplies, an excellent source of detailed factual information.

A series of tables of useful laboratory information and a special section dealing with the compounding of perfumery and cosmetics, as well as a classified list of reference works, should prove of particular interest to packagers serving the cosmetic and soap industries.

JONES & LAUGHLIN STEEL CORP., Pittsburgh, Pa., has issued an elaborately prepared board-bound book in celebration of the completion of its 96-in. continuous strip steel mill which forms the newest unit of the J & L Pittsburgh Works. The volume entitled "Strip and Sheets" is profusely illustrated to form a running description of the entire process of making strips and sheets in the new plant.

The new mill has a monthly capacity of 60,000 gross tons, occupies in excess of 23 acres of land and a floor area of approximately 1,000,000 sq. ft.

In addition to a vast number of other products, the unit now supplies light-weight hot-rolled strip coils for the J & L Aliquippa Works tin plate department which, in turn, supplies can and other package making plants.

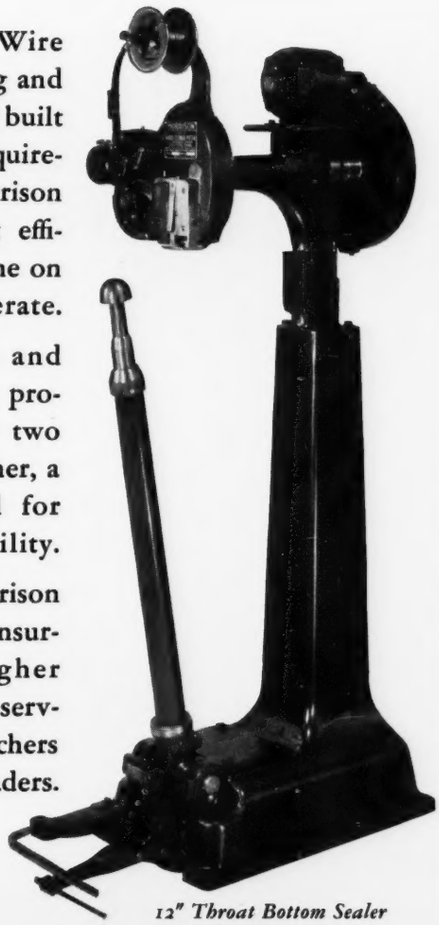
Modernize Packaging with a MORRISON

12" Arm Box Stitcher
Model 32-K

There is a Morrison Perfection Wire Stitcher for every closing, fastening and mounting problem of industry—and built in size and capacity to meet every requirement. Forty years have made the Morrison Perfection wire stitcher the most efficient, as well as the easiest machine on the market to adjust and to operate.

Morrisons drive their stitches and clinch them on today's automatic production lines. Actually wherever two materials must be fastened together, a Morrison should be considered for simplicity, sturdiness and durability.

IN MODERN PACKAGING the Morrison is the *modern* method of business, insuring lower operating costs, higher operating profits and long years of service. Morrison Perfection Wire Stitchers are invariably the choice of the leaders.



12" Throat Bottom Sealer
Model 32-KG-2

SALES AND SERVICE DEPARTMENTS:

- Chas. N. Stevens Co., Inc.
  112 W. Harrison Street,
  Chicago, Ill.
- Seybold Division,
  819 Washington Street,
  Dayton, Ohio
- Chas. A. Strelinger Co.
  149 E. Larned Street,
  Detroit, Mich.
- J. H. Schroeter & Bro.
  225 Central Avenue S. W.,
  Atlanta, Georgia
- American Type Founders Sales Corp.,
  500 Howard St.,
  San Francisco, Calif.
  222 S. Los Angeles St.,
  Los Angeles, Calif.
  121 S. W. Fourth St.,
  Portland, Oregon
  Western Ave. and Columbia,
  Seattle, Wash.
- E. P. Lawson Co., Inc.
  426 W. 33rd Street,
  New York, N. Y.
  The Bourse, Philadelphia, Pa.
  170 Summer St., Boston, Mass.
- Harris-Seybold-Potter (Canada) Limited
  445 King Street W.,
  Toronto, Canada
  637 Craig Street W.,
  Montreal, Canada

SEYBOLD · DIVISION
HARRIS • SEYBOLD • POTTER COMPANY
DAYTON • OHIO

Dear Editor:

REGARDING COLOR

MODERN PACKAGING has been publishing a series of articles on color prepared by the staff of T. J. Maloney, Inc., with the cooperation of a number of designers and others whose experience has qualified them to speak on the subject.

In this series, the emphasis has been laid on the difficulty of following fixed rules and on the necessity for a "common sense" approach toward color choice.

Since a number of authorities adopt the opposite view, namely, that color is subject to precise analysis and systematic choice, MODERN PACKAGING has asked one of the foremost exponents of this viewpoint, Arthur S. Allen, to expound his comments. Mr. Allen's remarks follow:—ED.

Sirs:

It has been intimated, in the series of articles on color which has been appearing in MODERN PACKAGING, that the average business man develops a bad case of confusion when confronted with a series of hue circuits, charts, color wheels, etc., which tend to reduce color harmony to a few simple rules.

Naturally there are basic rules. Any worthwhile culture is built on a fundamental foundation. There are basic rules for harmony in music, yet the greater the technician, the more subtle the person, the more he may deviate from the basis.

Color, as yet, does not have the classical background that our friend music enjoys, but there have been many persons making color their life study. Notable among these was Albert H. Munsell.

Munsell reduces his color studies to a three dimensional basis. He is perhaps the most scientific of the group, yet his scientific trend adapts itself beautifully to industrial uses.

We are, therefore, confident that the business man with a small amount of study or even glancing at a few hue circles, value scales and color layouts done in balance and unbalance, would soon enrich his own culture. We only suggest these cases as it affords the business man, who is presumed to have no color sense, a chance to check with his designer and artist in the use of color. He no longer will be an outsider or a "take-it-for-granted" man.

The knowledge of a few fundamental rules of color will give him a wider scope in his field other than ordinary black and white figures. It's true that the business man is in business to merchandise his product and by developing some knowledge of color he cannot only have the better comprehension of what to do with his product line but he enriches his own personal viewpoint.

Color is not a mystery or phase of industry for artists and designers alone. It can be interesting, practical and yet used by the intelligent business man.

ARTHUR S. ALLEN

MACHINERY EXPORT OPPORTUNITY

Sirs·

We are the European sole selling agents for several American concerns with regard to their machinery for the printing and allied trades.

Should any of your business friends be interested in finding a new outlet over here, we shall be only too pleased to consider any proposition which you may care to put up to us. We have large showrooms and a well-trained engineering staff and are able to handle any special machinery connected with the packaging industry.

FUNDITOR LIMITED

DISPLAY DISCUSSIONS

(Continued from page 62)

On the Advantages of Paintings in Displays

"Here are some of the reasons why we see an advantage in using paintings now and then. I am expressing not my own opinion alone, but that of the account executive, the copy-writers, and perhaps a reflection from the client. It is, of course, incomprehensible to the average photographer why there are paintings in a magazine at all.

"First, you will find clearer, fresher color all over a good painting. You can pick out a few color photographs that have in them colors that are as fresh and clear. On the other hand, it is easier to get a painting (water color), which undoubtedly will show a much clearer, fresher color.

"Another reason for using the artist rather than the photographer would be the vogue for caricature. See the volume of comic strips. That's one of the most interesting phases that's come over advertising, and one of the advantages is that it can be so condensed. You can get material in a comic strip that you used to spread over a full page in newspapers. Color photography is not exactly suited for it; it hasn't the freedom and flexibility; it can't be done as fast. If you want a six-panel color strip, an artist can produce it six times as fast as a color photographer. You have the advantage of any degree of exaggeration in caricature."

Gordon Aymar, art director, Compton Advertising, Inc. From a speech delivered at the Young Lithographers Assn.

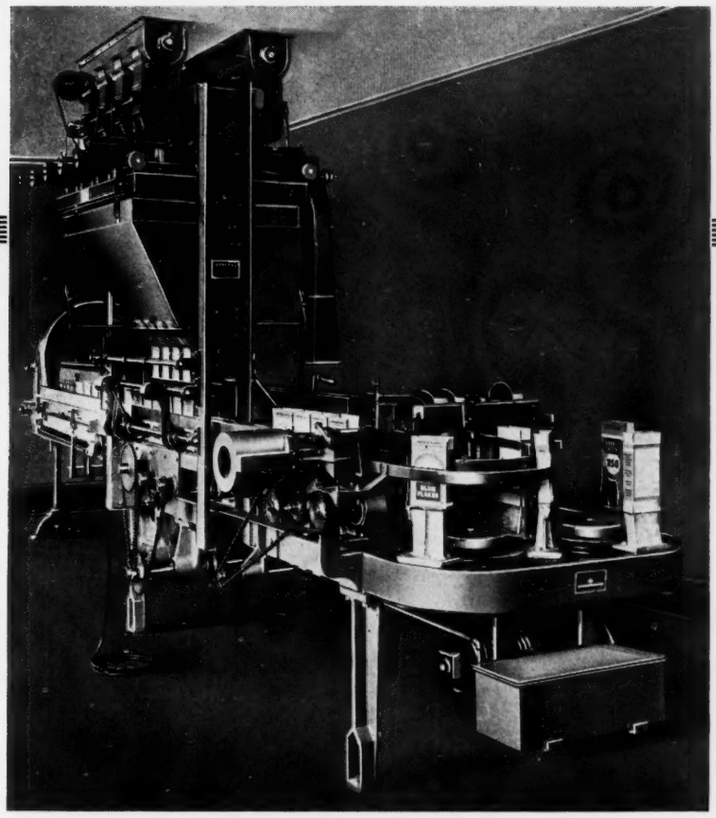
New Technical Advances

"In connection with plate making, most of you are familiar with the old-fashioned lithographic technique in which the old stone type artist used a crayon and a little guesswork and a little bit of tracing to separate the colors. There were times when you would take a beautiful little golden-haired child in art work into the plant and it would come out a dirty little pickaninny. When it did, you were disappointed and surprised.

"It is interesting to note that the principle of gravure is the basis for deep etched plates. The surfaces which contain the ink are hollowed out, re-applied onto a rubber blanket with a crisp, clean edge and then they are re-transferred (I am talking now microscopically) to the paper; they still preserve that sharp, crisp edge which gives that brighter and more lively quality to the reproductions which I have shown.

"That is what we call a major development in displays. It is a key step forward in the graphic arts. It will stretch across the industry and in five to ten years will be widely used throughout all parts of the country. At the present time it is popping up in Chicago as well as New York and occasionally in other cities."

N. J. Leigh, Einson-Freeman Co., Inc.



FOR SPEED, EFFICIENCY AND PROFIT PACKOMATIC CARTON SEALING MACHINE

WITH AUTOMATIC NET WEIGHER

A combined bottom and top carton sealer equipped with eight unit net weigher for semi-free flowing products.

The weigher is furnished with or without power feeder and four units dump while four fill. Tripping device is operated by bottom sealed cartons when ready to receive the load.

Convertible for wide range of carton sizes. Commercially accurate weights are guaranteed. Operating speed up to 60 or more packages per minute. Only one operator required.

We manufacture many different types of Automatic and semi-Automatic packaging machines, scales and volume fillers and packers, with operating speeds of 15 to 60 or more per minute. You will find our experience valuable to you.

EXPERT CONFIDENTIAL CONSIDERATION WILL BE GIVEN TO YOUR PARTICULAR PROBLEM WITHOUT OBLIGATING YOU IN ANY WAY

REPRESENTED IN
CHICAGO
NEW YORK
CLEVELAND
BOSTON
ST. LOUIS
NEW ORLEANS
SAN FRANCISCO
LOS ANGELES
SEATTLE
DENVER

WE ALSO MANUFACTURE A COMPLETE LINE OF AUTOMATIC AND SEMI-AUTOMATIC CASE SEALING MACHINES FOR HANDLING PAPER CASES.

PACKOMATIC

PACKAGING MACHINERY

J. L. FERGUSON COMPANY, JOLIET, ILLINOIS

Plants and personalities

H. L. HANSON, for fifteen years associated with the U. S. Automatic Box Machinery Co., Inc., as Midwestern representative, has returned to that company in the capacity of sales manager and will operate out of the firm's Boston office. Most recently Mr. Hanson was associated with the Pneumatic Scale Corp., following a period in which he served as sales manager of the Franklin Steel Works.

J. L. FERGUSON CO., Joliet, Ill., has appointed E. P. Lastrapes as representative for its line of machinery in the territory formerly covered by J. E. Bousquet. Mr. Lastrapes will maintain his offices at 206 Tchoupitoulas St., New Orleans, La.

NEW JERSEY MACHINE CO., Hoboken, N. J., has recently increased the office space available at its plant with a new wing which will house the firm's executive offices and thus make room for increased space for the company's drafting rooms and engineering departments.

DURAND MANUFACTURING CO., Chicago, manufacturers of leather- and imitation leather-covered boxes, has moved its offices and plant to larger quarters at 1319 S. Michigan Ave.

KENNETH FINDLEY has been elected president of the F. G. Findley Co., Milwaukee, succeeding the late Frank G. Findley, founder of the firm. Ralph Findley has been elected vice president.

DE VAULCHIER, BLOW & WILMET, INC., industrial designers, have moved their studios to 51 E. 42nd St., New York, N. Y.

STEVENS A. BENNETT has been elected chairman of the board and general manager of the Wilson & Bennett Mfg. Co., Chicago. Harry M. Gustafson has been elected president. Mr. Bennett has been associated with the company since 1910. Mr. Gustafson was formerly vice president of the Northern Trust Co.

WEINMAN BROTHERS, Chicago, Ill., manufacturers of gift specialties, announces the association of J. A. Perkins with their Eastern sales office under the supervision of Richard G. Ehrlich, 11 W. 42nd St., New York. Mr. Perkins was formerly Eastern sales manager for the Grocery Store Products Sales Co., Inc. and was last associated with the See-Thru Container Corp.

FLLOYD TRIGGS, advertising and sales promotion manager of Riegel Paper Corp., New York, has been elected president of the Paper Makers' Advertising Assn., Boston, Mass., formerly the Paper Makers' Advertising Club. Edson Dunbar, with Crocker-McElwain Co. and the Chemical Paper Co., is vice president. E. S. Colvin, Appleton Coated Paper Co., is Western section vice president. Richard A. Faulkner, International Paper Co., is secretary and Maurice A. Park, treasurer.

HASTINGS & CO., gold leaf manufacturers, have announced their consolidation with W. H. Kemp Co. of New York. W. H. Kemp Co. will henceforth operate as a division of Hastings & Co., serving gold leaf users in New England, New York State and parts of Northern Pennsylvania and New Jersey. The headquarters of the company will remain in Philadelphia, where the business was established 188 years ago by Dr. John Hastings. A branch of Hastings & Co. in Chicago will continue to serve the Western territory. No change in the personnel of either company is anticipated.

G. A. BISLER, Inc., Philadelphia, Pa., paper box and display manufacturers, have moved their New York offices to 55 West 42nd Street.

GEORGE L. CRAMER, JR., has been appointed New England manager for the Niagara Lithograph Co., with headquarters in Boston.

GEORGE P. HOWELL has been appointed district manager for Wisconsin and Upper Michigan of the Strip Steel Division of the Acme Steel Co., Chicago. Mr. Howell will make his headquarters in the Guaranty Building, Milwaukee, Wis.

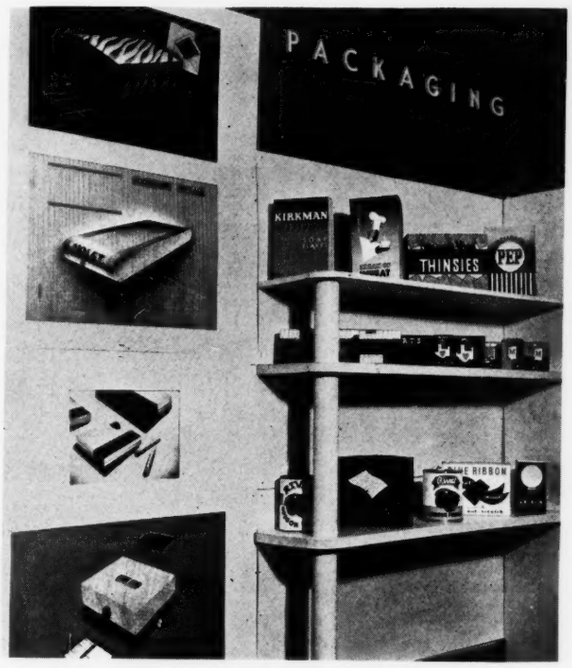
LEWIS D. ZEIDLER has joined the Eastern sales force of the Edwards & Deutsch Lithographing Co. of Chicago, with offices in the Postum Building, New York.

V. RUSSELL PAYNE has been appointed sales representative for the Mundet Cork Corp. and will cover North Carolina, Virginia and Maryland, with headquarters in Washington, D. C. Raymond P. Starr has been promoted to a district sales managership in the states of Georgia and Florida.

THE PAYSON CO., manufacturers of cotton, wool, rayon and metallic finished papers, has moved its plant to 260 Grove St., Rockland, Mass.

THE ANNUAL EXHIBIT of the Art School of Pratt Institute which was held during the first two weeks of May at the International Building, Radio City, N. Y., attracted over 20,000 people who paid particular attention to the portion of the exhibit devoted to package design. This was the first exhibit of the Institute to be held in New York and succeeded in establishing the position of Pratt Institute as a leading factor in the training of technically equipped designers in the packaging, advertising, industrial design and architectural fields.

The packages exhibited represented the work of students of the container design course under the guidance of William Longyear. That the course suitably covers the material and mechanical, as well as the visual aspects of packaging, was amply demonstrated by the many units exhibited, a large proportion of which could be applied, with little or no change, to meet the practical needs of package users.



A few of the many container designs found in the exhibit of the work of students of Pratt Institute held at Radio City during the early part of May.

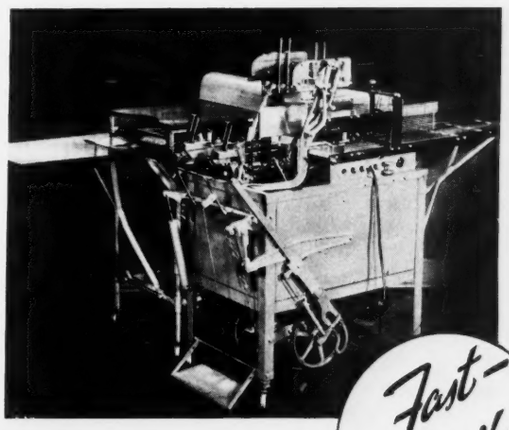
The Institute maintains a placement bureau through which students taking its various courses may be employed by industry. Those interested in employing young package designers should address William Longyear, care of Pratt Institute, Brooklyn, N. Y.

WENTWORTH WEEKS, industrial designer, has moved his New York offices to 60 West 48th Street.

THE STUDIO of Frances Cushing Hall, designer, has been moved, as of May 1, from New York City to 71 Tompkins Ave., Mamaroneck, N. Y.

2 Checks

The HIGH COST of WRAPPING!



Fast-Flexible

This NEW

HEAVY DUTY

MILLER WRAPPING MACHINE

- ✓ Wraps individual packages, *and bundles too.*
- ✓ Takes Cellophane, kraft, or waxed papers. Glue or heat seals.
- ✓ Cuts printed papers, in accurate register.
- ✓ Instantly adjustable, within generous limits.
- ✓ Low in cost.

PROFIT by writing!

Miller WRAPPING & SEALING MACHINE CO.

14 So. Clinton St. CHICAGO

HOW FACTORIES HIRE AND TRAIN PERSONNEL

(Continued from page 52)

"Due to the diversity of our work considerable effort is made to develop versatility. The practice of building up 'specialists' is avoided.

"Wages are proportioned to skill, and this is done somewhat automatically by the various steps in base rates for the piece rated jobs, which are in the majority.

"A physical examination by a doctor is made at hiring, with normal health and strength required."

A MAJOR MANUFACTURER OF SURGICAL DRESSINGS*

"Our lines include over 1800 products and various put-ups and, with the exception of the hospital line, nearly all require the packaging operation. The hospital products as a whole consist of a wrap and label.

"The personnel department selects new employees for the packaging departments, the standards being practically the same for hiring all factory employees. Previous training or experience is not required of prospective employees for packaging operations. The major qualities looked for are neat-appearing, clean people, with no apparent physical handicaps which might hamper their doing a complete job either on a machine or otherwise.

"Before hiring, all likely candidates are sent to the doctor for a thorough physical examination. If he passes on their physical condition, they are put to work. The doctor's complete reports on all such examinations are subject to periodic check-up by the nurse, who also makes regular trips through the plant looking for defects which might prove a detriment in the put-up of our numerous products.

"New employees go through a probationary or 'learner' period, during which time they are instructed on the job. Training is done by the foremen and by special instructresses (usually older, experienced employees) trained by the methods department in the most economic performance of the job. The amount of formal instruction on the job varies with its difficulty, but performance records are kept by foremen and instructresses on each 'learner' until he has reached the standard set by the time study department. The learning period varies from two or three weeks to three or four months, depending on the difficulty of the job and the adaptability of the worker.

"Operators are all trained to do several jobs, often in various departments, so that the factory force will be flexible enough to meet production requirements and also to provide more steady employment for regular employees of our organization.

"Wages are set within a definite wage scale and job classification. Individual rates are set within these various classes and are affected by the employees' skill, experience, general ability and a number of other qualities. In this department there is a follow-up on each individual's rate at stated intervals to see that it compares favorably with the work being done. The management attempts to keep rates in line with going rates in the city by frequent comparison of these jobs and rates with those of other companies whose products are of a similar nature.

"Foremen's group meetings are held weekly, attended by all regular foremen in the factory and the discussion is led by the plant production manager. Routine matters and regular announcements concerning products are disposed of at these meetings and considerable discussion of various factory and management topics is encouraged and welcomed."

NATIONAL TEA CO.

"All of the general manufacturing divisions at the present time, as well as the balance of our warehouse, are members of the American Federation of Labor, Grocery Workers' Union. We have a personnel division that interviews all prospective employees. In their hands, all preliminary steps toward hiring an employee are placed. For routine replacements, they follow through and complete the transaction. In the case of operators of special equipment or department foremen or any other special type jobs, we have these employees referred to us for interview before they are actually hired.

"The personnel division, in a routine way, attempts to rate the employee's qualifications according to a listing that they have been using.

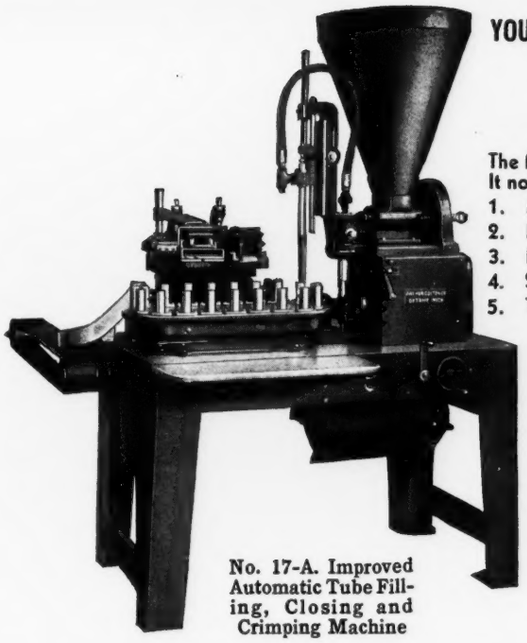
"We find, in the operation of our manufacturing divisions, that a man, in order to put in full time, must become experienced in the operation of more than one job or piece of equipment. In most cases, our volume is not great enough to insure a man's full time operation on a specialized job and the crews operate from one line to the other in putting in their full day's work. This flexibility of operation insures us, at the same time, of having men that can replace a regular operator on any specific job at any given time.

"Since the advent of the Union some time ago, we find that we have been somewhat cramped in this direction lately, because where the majority of a man's time is spent in the operation of a unit, they have set up rates for that job that are somewhat higher than the average for other men. We cannot place another man on this job without increasing his salary proportionately within a relatively short space of time. This has reduced the flexibility of our employee regulation to a certain extent.

"Practically all of our supervision by way of foremen is subject to complete control from the office, and for that reason we do not depend upon any individual in the plant to as great an extent as do most concerns.

"We have found, with our method of production variances, that it has worked out just as well to develop a bright conscientious man without experience as it would have been to take an experienced man and get him fairly familiar with our methods of plant operation.

* Name withheld on request.



No. 17-A. Improved Automatic Tube Filling, Closing and Crimping Machine

YOUR IMMEDIATE ATTENTION IS CALLED TO THIS *NEW* No. 17 IMPROVED AUTOMATIC TUBE FILLING, CLOSING AND CRIMPING MACHINE for SEALING COLLAPSIBLE TUBES.

TYPE "A" for PASTE. "B" for POWDERS. "C" for LIQUIDS.

The famous COLTON CLOSURE machine has been greatly improved and simplified. It now offers you these new advantages:

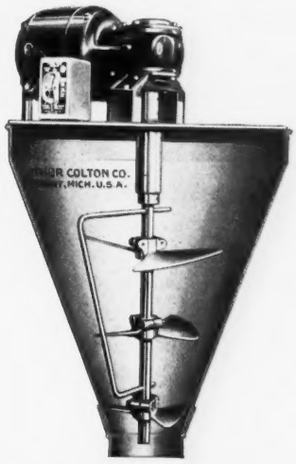
1. Motor is underneath, out of the way.
2. Equipped with REEVES drive for speed control.
3. New design filling head gives a positive free smooth action of nozzle.
4. Start and stop push button switch.
5. Two hand levers. One for starting machine proper. One for stopping and starting filling mechanism.

All of these improvements—yet no increase in price. Write today for a sample tube and full information on this machine.

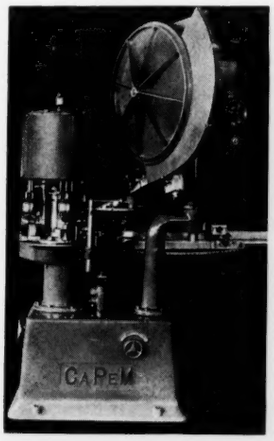
ARTHUR COLTON CO.

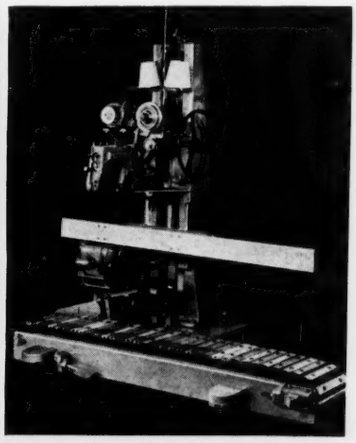
2602 JEFFERSON AVE., EAST

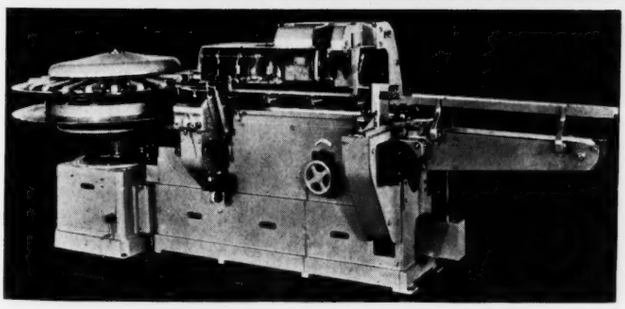
DETROIT MICHIGAN



Electric Drive Stirring Device as shown is recommended for materials that do not flow readily in our standard hopper.







DO YOU AGREE?

THAT A PACKAGE IS ONLY AS GOOD AS ITS SEAL . . .

Then you will understand why we have specialized on this phase of packaging.

These 3 lines are accounting for millions of safely sealed consumer items.

CAPEM Automatic screw, friction or slip type capping for metal or plastic caps. Sort feed apply.

SEALTITE producing an improved seal for small paper bags.

HOEPNER for sewn closures of every description.

Also various types of related equipment offering a direct approach to lower packaging costs.

CONSOLIDATED PACKAGING MACHINERY CORP.

1400 WEST AVENUE BUFFALO, N.Y

"As far as the wage set-up is concerned, our Union agreement calls for the scale of rates proportionate to the skill of the operations involved.

"Before any employees are hired in the plant, a physical examination is made and a report sent by the medical advisor to the personnel department. We have not been making any physical tests periodically after hiring, except in special instances."

MERCK & CO., INC.

"New personnel for our packaging department is selected by the combined offices of the personnel director and the department head. Personal cleanliness, grooming, general intelligence and quick, agile fingers are the general requirements for hand operators. Our machine operators are selected by the department head from the group of most expert hand workers.

"Foremen and foreladies are selected from the ranks of the most experienced hand workers and machine workers. They are also given special classes in work simplification and methods.

"Operators are trained by more experienced operators and by foremen and foreladies for a period of from two to six weeks, depending upon the nature of the work which they are to do. Some operators are trained specially to handle filling of ampules in one special department, but the majority of operators are trained to be able to work at a number of stations and to do several kinds of work equally well.

"Wages are, of course, very definitely classified and proportioned according to the skill of the operator, but all operators have an opportunity to make a daily bonus for a day's work larger than the task set.

"All operators are very carefully examined by our medical department when hired and re-examined yearly thereafter. A physician and a nurse are in attendance at all times and employees are, of course, required to report all illnesses or injuries promptly."

THE ARNER CO., INC.

"We are exclusive manufacturers of private formulae and market no preparations whatsoever under our own label. Our packaging machinery is most modern and of semi-automatic type, designed to meet production requirements. Because of the nature of some of our packaging operations, we have found it necessary, from time to time, to build special equipment suitable to our needs. We also do a small amount of complete hand packaging, where the package is not adapted to machinery or quantity of order is too small to warrant the utilization of a machine set-up.

"While we do not maintain a separate school of instruction for our operators, each operator is under the supervision of, and instructed by, an experienced forelady, or by our production superintendent.

"We have a minimum wage for new operators effective for a period of four weeks; thereafter the wage scale is advanced, according to the skill of the individual.

"All employees of our company are subject to a yearly medical examination, the cost of which is paid for by the company. When new employees are hired, the usual application blank must be filled out and accompanied by a health certificate furnished by a reputable physician."

GENERAL FOODS CORP.

"New employees for our packaging departments are selected by the foreman from applicants submitted by the employment office.

"Requirements for machine operatives depend entirely on the type of machine and the type of work to be done. In the case of hand operators, the requirements vary according to the type of work to be performed.

"In selecting mechanics, the applicant's mechanical experience, in the same or like work, and his ability to get along with operators and foremen is given our careful consideration.

"Our special training for foremen and foreladies consists of various conferences and courses pertaining to leadership, knowledge of equipment and knowledge of the product manufactured.

"Operators are trained through instruction by the foremen, apprenticeship under an experienced operator, or by actually operating the machine under the direct supervision of an experienced operator. The training period varies, depending on the adaptability of the operator. All operators are trained on as many jobs as possible, and wages are proportioned to skill.

"Medical examinations are required before employment and thereafter yearly check-ups are made."

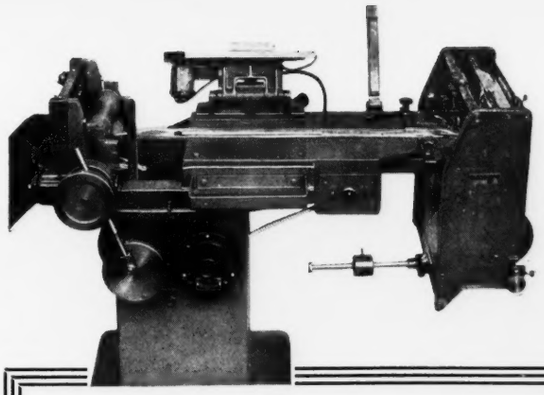
GROVE LABORATORIES, INC.

"For new girl operators, we usually apply to the Board of Education. Apprentices for our mechanical and electrical departments are furnished by various trade schools and for plant maintenance and general factory work we have a waiting list of applicants to choose from. Applicants are interviewed by the employment department. Final authority for selection rests with the department head under whom the applicant is to work or with the superintendent, depending upon the kind of vacancy to be filled.

"The new employee assigned to the packaging department usually starts as a hand operator and is placed alongside an experienced operator who, in accordance with instructions received from the department head, demonstrates the motions and methods applied in assembling the package.

"Inasmuch as hand packaging generally consists of simple routine operations, it takes the beginner only from two to three days to develop a normal production speed. With few exceptions, all hand operators are eventually trained for automatic machine work.

"After a brief explanation, followed by actual demonstration, the beginner, aided by an experienced operator, works on the automatic station two hours daily for a period of two or three days. As soon as the operator acquires speed and accuracy, she takes over the station during relief hours. This method helps the new operator



CUT BAG COSTS IN HALF WITH THE WRAP-ADE AUTOMATIC HEAT-SEALING BAG MACHINE

No need waiting on deliveries . . . no need buying large quantities of bags to get low costs . . . no need storing and tying good money up in large stocks of bags . . . when you can make your own bags and envelopes yourself . . . *economically . . . and when you want them*, with this automatic Wrap-Ade machine.

You make up to 25,000 high quality bags a day . . . cut costs in half because of its low operating cost . . . its thrift with material (works from rolls) . . . and because you pay the profits on your bags into your own pocket ! !

Easily adjusted to making any bag up to 12" x 16" from any heat sealing material . . . only one unskilled operator required.

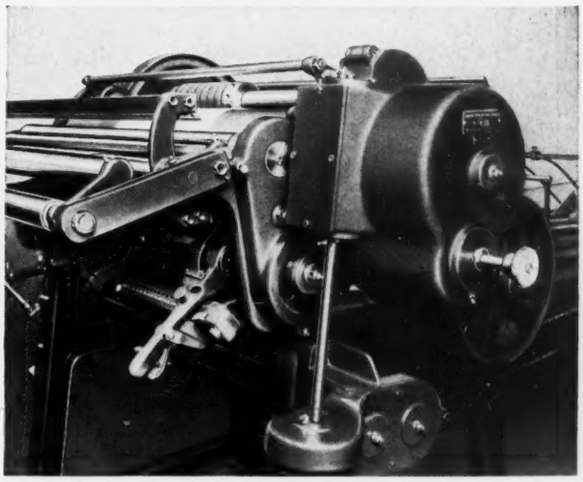
Write for full details.

Wrap-Ade Machine Co., **INC.**

215 Central Ave. MArket 2-0931 **Newark, N. J.**

Ask also about Wrap-Ade Devices for sheeting, gluing, sealing, crimping, labeling, punching and bag, envelope and tube making with transparent cellulose.

NEW ACCURACY GOALS IN CUTTING TO PRINTED REGISTER



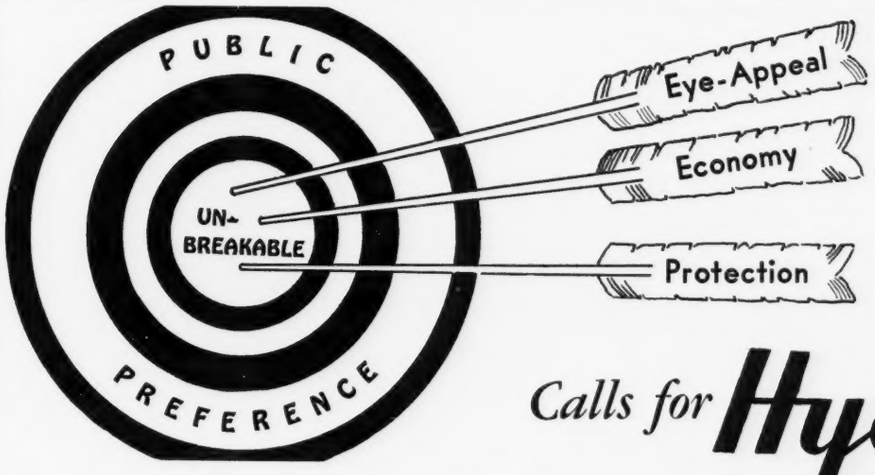
To those leaning on the importance of greater economies thru waste elimination and precision accuracies in "Spot-Sheeting" do we address our invitation to investigate our new

DIFFERENTIAL CUT-REGISTER CONTROL UNIT

For cutting to register, printed wraps, labels, etc. This unit is to be had on Beck Sheeters controlled either by hand or ELECTRIC EYE.

CHARLES BECK MACHINE COMPANY

13th & Callowhill Sts. **Philadelphia, Pa.**



The "Bull's Eye" on your Sales Target Calls for Hycoloid

CONTAINERS —VIALS — SPECIALTIES

EYE APPEAL—in transparent or opaque colors, is the first of three strong magnets for public preference.

ECONOMY—because there is less cost in shipping and mailing. And no claims for breakage—Hycoloid does NOT break!

PROTECTION—real protection to you, the retailer AND the consumer because Hycoloid is UNBREAKABLE . . . It withstands usage that destroys other containers . . . Better for pocket, purse, or household use.

Ask for details from our Container Designers. (*No obligations*)

HYGIENIC TUBE & CONTAINER CO.

42 Avenue L **Newark, N. J.**

to gain confidence. A few days of relief work is generally sufficient for the operator to take over the station at full time. The training period for a machine operator depends upon the adaptability of the individual and the number of motions necessary to operate a particular station, but seldom exceeds two weeks.

"We have some specialists in our packaging departments. However, nearly all operators are trained so as to be able to work on any one station on our automatic production lines.

"Operations in our various processing departments require judgment and non-routine abilities, and men for this type of work are selected with care. Generally, we fill these jobs by transfer or promotion from within the plant. The beginner learns the manufacturing process under the direct supervision of the department head by doing minor operations at the start and assuming more responsibility as he progresses.

"Foremen and foreladies are usually promoted from the ranks of our factory employees. For this purpose the foreman or forelady selects and trains one operator from a department to act as assistant.

"Wages are proportioned to difficulty and volume of work and the responsibility involved."

LEHN & FINK PRODUCTS CORP.

"Personnel selection and training in industry as a whole is receiving increasing attention on the part of management. In some of the larger plants, elaborate systems for testing work aptitudes and determining favorable or unfavorable mental qualities have been installed. Often fairly large staffs of training personnel experts, including psychologists, are used for this purpose. While probably much interesting scientific data as to human behavior and other qualities may be obtained from such testing, yet to our mind, from a purely practical viewpoint, adequate employee selection can be achieved in the smaller plant through simpler employment procedures.

"Packaging department personnel consists essentially of line operators, usually female (either at machine or hand assembly work), helpers, usually young men, whose duty it is to see that packing materials are on hand for the various operators, and mechanics whose essential task it is to keep equipment in good running order at all times.

"In the selection of female packaging help we feel that an interview by a competent employment manager is in most cases sufficient to determine whether an applicant is suitable for the job or not. A poor worker may occasionally slip through but we have a secondary control established to remedy just such a situation. All new employees understand when hired that their first three weeks will be a probationary period during which time their general aptitude toward the job will be determined by their supervisor. After these first three weeks, the supervisor reports favorably or, if need be, unfavorably, on the worker. If the report is satisfactory, the new worker is then considered as a regular employee.

"You may ask what qualities are particularly looked for in girls applying for packaging operation jobs. While our answer may not be ultra-scientific, we have no hesitancy in selecting a girl of normal health and normal, or near normal, mental reactions. And we think we can determine the latter satisfactorily without the aid of any complicated system of psychological testing.

"In general we apply the same employment procedure to the selection of young male helpers. Mechanics, because they represent skilled workers, are interviewed not only by the employment manager but also by the master mechanic who passes upon their qualifications and experience for any given job.

"In our factory set-up we have a production control department, part of whose function it is to study and improve work place layout, flow of work and work methods. Department supervisors are instructed as to standard approved work practices and they in turn instruct the line workers. We strive to make operators efficient in all the basic operations performed, which gives us a maximum degree of flexibility in scheduling production. Skill and general capability are the main factors in determining wage rates."

SHARP & DOHME, INC.

"All new personnel for our packaging departments is selected by the personnel department and fitted into the various operations in the finishing departments, in accordance with their aptitude as determined by the department manager. Our finishing departments have been centralized for pharmaceuticals and biologicals and a large number of employees in each of these departments permits us to select those most capable for the various operations, such as machine labelers, filling machine operators, cap machine operators, etc., in accordance with their ability. In the same manner, we select our foremen and foreladies in line with their length of service and ability in handling employees and getting the work done, their personality, general appearance, loyalty to the company and various other factors as may develop over a period of time.

"Operators of equipment in the finishing departments are selected and trained over a period of time by the department manager or assistant department manager in charge. It is desirable that such specialists become apt in more than one operation in the line and it is our policy to encourage our employees to be able to fill several different positions.

"We believe it entirely feasible to operate all finishing divisions on a piece-work basis and in this way the weekly wages received are in proportion to the skill of the operator or finisher. While this payment plan requires strict supervision of the finished package, it seems highly desirable as an incentive to all employees in the finishing departments.

"You will note from the above brief outline that we do not operate a separate and distinct training school for employees, but we expect them to gain their training in actual work in the department. In the same way we

haven ot developed tests to be made in hiring or periodically thereafter but the writer feels that this field will be developed in the future and that all larger concerns will necessarily follow such a procedure in hiring and training, sooner or later."

D. & L. SLADE CO.

"Our organization is a small one, with approximately fifty employees. We have no machine operators in our organization who have been with us for less than ten years due to the fact, of course, that our labor turnover is practically zero. It is our custom to have the older men break in the younger ones on the basis of being prepared for an emergency, and the training given is largely what might be called 'watching.'

"These operators usually work at the packaging end of the line during their training period, which enables them, in case of any temporary shut-down, to see what is being done by way of adjustment during a breakdown. Our foremen are taken from the machine operators when a replacement of personnel is necessary.

"Except for the machine work, there is no other training required because the packers and general helpers come under the heading of common labor. The operators are not exactly specialists in that they have charge of any one machine, but generally there are four units to a packing line and the operator has charge of all four units. Wages are, of course, proportionate to the responsibility involved, according to the type and number of machines in charge of an individual."

THE TRADE LABORATORIES, INC.

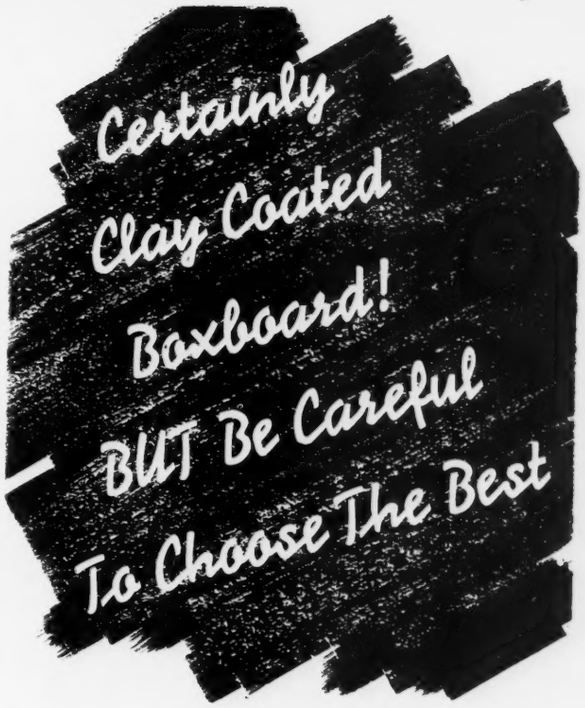
"We package shaving, dental and facial creams in tubes and jars with cartons and corrugated case. Having only a small organization, 35 in all, our personnel is fairly constant. When we take on new girls or put on a few temporary extras, the forelady in our packaging department does the selecting. Our main requirements are neatness, alertness and health. Boys are selected on the same basis by the plant manager. We do not have any physical examination by a doctor.

"When new machine operators are needed, they are selected from those who have been with us for a while and have shown aptitude and possibilities after a short trial on the filling machines. These trials are instigated and supervised by the forelady.

"As to foremen and foreladies, we have only two persons in such supervisory positions and have not had to do any selecting for a long time. Our chemist and one of the boys do the necessary mechanical jobs. We have no repair shop. If special work is necessary, we use one or two local machine shops, who are equipped for the kind of work required.

"Being a small plant, we cannot keep 'specialists' busy, so our personnel is trained to adapt themselves to various jobs in the plant.

"We have a Safety Organization which meets regularly each month to talk over conditions in the plant. The personnel of this committee is made up of the secre-



By all means specify clay-coated boxboard to your carton maker. It means all the benefits of a smoother, finer, whiter board . . . But, be sure to get the clay-coated that will give you better wearing, better bending, better scoring and better printing—BEND-WELL, the *Air-Conditioned* boxboard.

BEND-WELL is air-conditioned because in the manufacture of clay-coated board, humidity and temperature play an all-important part in determining the quality of the product. The Eddy Paper Corp., makers of BEND-WELL, have equipped their giant new plant with an ultra-modern air-conditioning system that guarantees ideal weather conditions *every day.* Thus you are assured a supreme quality and uniformity hitherto obtainable only when the ideal temperature and moisture happened to come together in happy coincidence. BEND-WELL is *always* manufactured under such *ideal* conditions.

The next time your carton maker stops by, ask him about BEND-WELL. He'll be glad to show you samples. BEND-WELL means economy and a better appearing carton for you and for him.

AIR-CONDITIONED
BEND-WELL
CLAY-COATED BOARD
THE EDDY PAPER CORPORATION
GENERAL OFFICES AND PLANT: WHITE PIGEON, MICH.
CHICAGO: Palm Olive Bldg.
NEW YORK: Postum Bldg.

tary of the company, the forelady of the packaging department, one of the girls from the office and an inspector. The inspector is selected from the employees and the job is rotated every six to eight months. This Safety Organization has caused several improvements that might have been overlooked and has helped to make us all more safety-minded."

THE UPJOHN CO.

"The personnel for our packaging department is selected through our personnel department and these selections are submitted to our packaging department head for final approval.

"There are no definite standards or requirements for the selection of our machine operators. In the majority of cases, machine operators are selected from others in the department hired as hand operators who manifest natural mechanical aptitude. There are no set requirements for hand operators nor for mechanics, though a certain degree of dexterity or mechanical sense is taken into consideration.

"There is no special training required for foremen or foreladies although individuals with experience and a correct personality are chosen. Operators receive their training in the department through experience and as they become more experienced, they are advanced to more trying or more complicated operations without any set training period or anyone specifically designated to train them except as their foreman or forelady may guide them from time to time.

"Operators are not, as a rule, specialists in any given operation but are given experience so that they are able to work at a number of stations and, where the operation is fatiguing, operators are rotated so that the fatigue factor may be overcome.

"The wages are proportioned according to the skill and ability to produce.

"Physical examinations are made at the time of hiring and, in some instances, periodically after hiring."

JOHN WYETH & BROTHER, INC.

"Our personnel manager selects new personnel for our packaging departments. Machine operatives must have good eyesight and no deformities of either hands or feet. Hand operators must be clean and neat, and apparently in good health. Mechanics must be experienced in the line of work for which they are employed.

"Our foremen and foreladies must be graduate pharmacists or chemists.

"Operators are trained by personal instruction by the assistant director of the department and the training period depends upon the nature of the work to be done. All operators are trained to work at a number of stations. Wages are proportioned to both skill and term of service.

"No physical tests are made in our company either before or after hiring."

FIFTY-TWO CHECKING POINTS FOR THE MACHINE PURCHASER

(Continued from page 65)

the materials which are being packaged.

33. Static or similar material handling difficulties anticipated.

34. Provision for test run in machinery manufacturer's plant using actual samples of package materials and supplies which will be later utilized in conjunction with the installation.

Operating Conditions

35. Make and type of motor, starter and switch required or preferred (if furnished with machine).

36. Location of all machine controls whenever position is optional.

37. Lubricating requirements and system required.

38. Nature of each changeover contemplated from product to product or package size to package size.

39. Frequency of changeover from one product to another or one size package to another.

40. Number of operators required—under various operating conditions as contemplated.

41. Training of operators required. What degree of training is necessary? How long will such training take? Who will train them?

42. Location and provision for seating of operators.

43. Color and kind of paint necessary to match general paint schemes and to withstand spilling and cleaning operations.

44. Requirements for special plating or special treatment of metal parts.

45. Provision for cleaning machines, i.e., supply machinery manufacturer with data as to special requirements for cleaning involved in reaction to a product and machine parts, hardening or gumming of product, etc.

46. Climatic conditions in locality of installation.

Time Factors

47. Desired installation date.

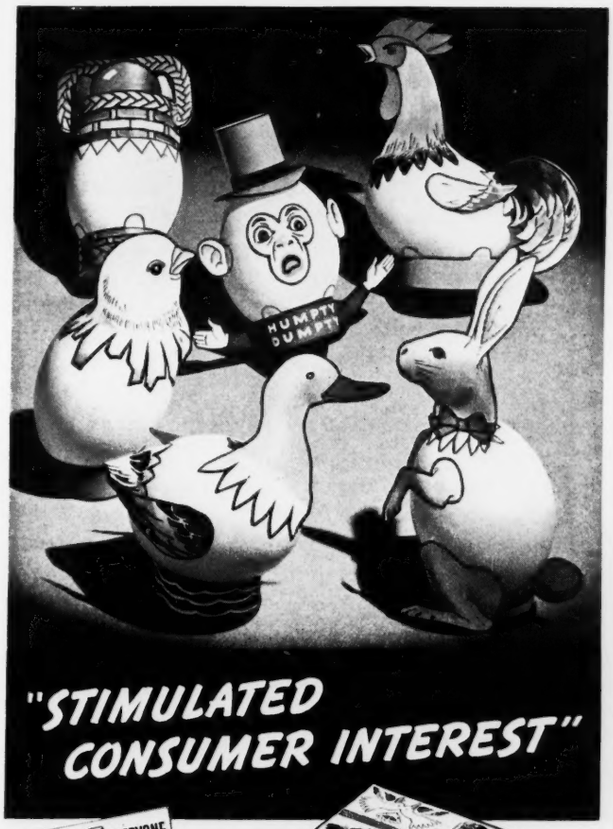
48. Time required to complete installation.

49. Time required to complete accessory installations and utility work necessary prior to placing machine on floor.

50. Time allowed for tune-up.

51. Time allowed for training of operators and maintenance workers.

52. Date on which production must start.



"STIMULATED CONSUMER INTEREST"

SO SAYS The Cudahy Packing Co. about these clever gummed paper cutouts, which won the Wolf Award for best package insert.

These gummed paper cutouts (for children to paste on eggs) also the supplementary advertising pieces, were designed and produced by "U-S". Most interesting to us—they increased the sales of our customer's product.

We can help sell your products, too.

The UNITED STATES PRINTING & LITHOGRAPH COMPANY AND DIVISIONS.

- ★ AMERICAN LITHOGRAPHIC DIVISION
- ★ ATLANTIC LITHOGRAPHIC & PRINTING DIVISION
- ★ DONALDSON LITHOGRAPHING DIVISION
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ST. CHARLES, ILL.
ST. LOUIS

You Pay Less To Ship LUSTEROID

That's right. Although rates to all shippers are the same, you ship far fewer pounds when you package your product in Lusteroid. You pay less because Lusteroid's eighty per cent lighter than equivalent glass. And furthermore, Lusteroid's unbreakable . . . so you need less wadding, no partitions. Can be packed in contact with one another at no danger of spoiled merchandise or leakage . . . putting an end to returns due to breakage.

Check on Lusteroid.

LUSTEROID
CONTAINER COMPANY, INC.

Formerly Lusteroid Division of The Sillcocks-Miller Company

10 PARKER AVENUE, WEST
SOUTH ORANGE, NEW JERSEY

NEW INFORMATIVE LABELS

(*Continued from page 40*)

5. How may the contents be best prepared?
6. If on a restricted diet, does this product have sugar or salt added?

The answers are given by the use of simple positive statements which can best be illustrated by referring the reader to the new label attached to this article.

Where the product is packed in other sizes of can, cross reference information is provided on the label, thus permitting the consumer to select the size best suited for individual needs. Where the product is prepared in different syles—such as corn—an explanatory statement appears with a tabulated list of the other styles available.

Finally, the new labels incorporate, under the word "directions," at least one good recipe for the use of the particular product contained within. Here the company has the policy of placing a different recipe on each size of can and of varying these recipes with each re-issue of labels that is made. By this means it is hoped that consumers will increase their use of particular products through an increased knowledge of a variety of ways of serving and it has been found, in some cases, that consumers actually save these descriptive labels for later reference to serving recipes. It would seem that this policy might be further explored by other packagers and that an investigation would be in order as to the practicability of designing can labels with the advance intention that they should be removed in whole or part by the consumer and retained as a part of a recipe file.

The entire series of new labels is being produced by the Schmidt Lithograph Co. who cooperated, through an extensive series of experiments, with the S and W organization in developing suitable direct color lithograph illustrations for the labels.

REDESIGNED CHIPSO PACKAGES

(*Continued from page 44*)

face and the rear panel, talking characters have been introduced to detail certain salient features of the product in a manner very similar to that utilized in national newspaper and magazine advertising. The side and end panels of the new package are so treated as to permit their being read when the package is placed with only this panel exposed. In this respect, this constitutes one of the first examples of redesign in which the manufacturer has taken account of the requirements of the supermarket mass display where many of the packages used are placed in reclining position. In the case of most present-day packages, placement in such position makes panel type unreadable and thus destroys the display value of a large proportion of the packages utilized in the building of mass display. The Chipso package, by contrast, can present its message for clear and easy reading in any given position.

The rear panel of the package illustrates another point of correlation between advertising and package design. In accordance with modern-day promotion technique, this face of the package presents four talking characters, detailing outstanding "talking points." In short, staccato sentences designed to catch the eye of the hurried reader. A more detailed instruction panel explains the advantages of the product, its applications and the best methods of using it. This section of the package is designed for use after purchase is made or when some particular problem as to the use of the product is present in the mind of the prospective purchaser.

The new packages, which retain the same color scheme as the old, have up to the present received only partial distribution. Wherever such distribution has been established, the company has reported an enthusiastic dealer reception for the new design and an increasing tendency toward use of the package as a more prominently displayed item. Even more important is it to note that the new unit is so designed as to permit of seasonal, regional or topical changes in package text to meet the needs of various markets. Thus should a future Chipso advertising campaign seek to emphasize the use of the product for the washing of clothes, one or more of the "talking panels" could be changed from other subjects to emphasize the clothes angle or any other angle the company desired to promote.

A NEW TYPE OF TEA BALL

(*Continued from page 28*)

does and in the same direction while the dies are on their down stroke. The press returns to its original position during the up stroke with sufficient speed to meet the next portion of the web which is to be cut at the completion of the cycle.

Credit: Parchment paper supplied by Paterson Parchment Paper Co. Speedry tag printing machine manufactured by A. Weiss. Parchment perforating machine and tea bag making machines specially designed and exclusive with Standard Brands, Inc. Wrapping machines, Model FA and FH, by Package Machinery Co. Carton sealing machines by J. L. Ferguson Co. Cartons by Wm. W. Fitzhugh, Inc. Staple wire by Aluminum Co. of America. Envelope paper by Riegel Paper Corp. Auxiliary cartons by Wm. W. Fitzhugh, Inc. Shipping containers by Star Corrugated Box Co., Inc. Tea bag string by the Premier Thread Co. Tag paper supplied by Coy Hunt & Co., Inc.

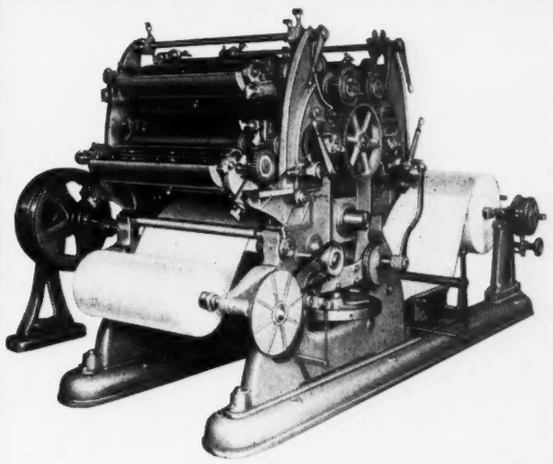
USE ANILINE
I N K S
WITH A REPUTATION

originators of
Opaque Aniline Inks

Opaque Aniline White, Yellow, Orange and a full range of colors

For use on Kraft, white paper, glassine and the various grades of transparent cellulose stocks

CRESCENT INK & COLOR COMPANY OF PA.
PHILADELPHIA



Four Color Die Inker

The first unit available to producers of wall paper, liner boards, wall boards, cover boards or photo mounts, whereby they may obtain an embossed surface spotted with multi-colors at a single operation.
Color may be located as desired, in perfect register at a speed of from 300 to 400 feet per minute, on paper or board taken direct from roll or sheets.
Wall paper taken from this equipment is now on sale throughout the United States. Samples of product and specifications of machine sent on application.

•

HUDSON SHARP MACHINE CO.
GREEN BAY, WISC.

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LIKE YOURSELF . . .

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The reason? Like you too, they find MODERN PACKAGING'S wealth of ideas, suggestion, surveys, illustration, and case histories *indispensable* in keeping abreast of today's packaging, displays, and merchandising methods.

$5.00 per year, you must agree, is small fee indeed for such inestimable aid. And $8.00 for two years is even a better bargain.

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425 4th Ave. New York City

LACQUER, VARNISH and GUM COATING for

Labels
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Boxmakers, printers, as well as package users come to Lowery and Schwartz for a superior paper coating service. Lowery and Schwartz have the efficient, specialized machinery, the long experience, and the skill that assures high quality, prompt delivery and low cost.

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CAnal 6-7703

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MODERN PACKAGING
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What's your GLUE RATIO?

Are you using too much adhesive? Hundreds of firms are . . . but don't know it. Upaco chemists know that the adhesive that will go the farthest—while providing a perfect seal . . . will usually give faster production and lowered spoilage. And, more, they know all the tricks of getting any special adhesive to "spread itself" for you. Twenty years of successful research have taught them that. Call upon them for aid and savings!

UNION PASTE CO.
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ANACONDA ELECTRO-DEPOSITED

Pure Copper Sheets

Stock widths 30" or 60"...and in rolls of long lengths. Thicknesses—1 ounce per square foot to 5 ounces per square foot (approximately .0015 inches to .007 inches).

NON-POROUS . . . RUST-PROOF

Practical uses for Anaconda "Electro-Sheet" Copper in new fields are innumerable.

Samples upon request

THE AMERICAN BRASS COMPANY
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ANACONDA
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38231

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RIGHT ON THE BOARDWALK

For Recreation Or Relaxation

FROM $6 WITH MEALS & BATH
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Choose the Chelsea

Here you will find everything to further your comfort and enjoyment—outside ocean-view rooms . . . sun deck . . . beautiful dining room at the ocean's edge . . . superb cuisine . . . varied sports . . . and entertainment. You'll like your fellow guests . . . and the delightfully friendly atmosphere of The Chelsea.

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Says the CRAFTMASTER

You'll profit by the savings and dynamic display these exclusive T & T processes in foil bring to:

Labels, Window Stickers, Fancy Box Wraps, Signs, Display Cards, Seals and Advertising Specialties...

The deep embossings with unique hand-tooled patterns in rich color tones create outstanding package product and advertising displays.

OVER 70 YEARS EXPERIENCE

The TABLET & TICKET CO.
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Mail this coupon for Samples and Prices.

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FOR metal containers with the modern touch, look to a company that is young and progressive. Crown has every facility to serve you . . . skillful design, finest lithography, ample plant capacity and an organization thoroughly experienced in packaging problems. Add to that a sincere desire to merit your business by serving you better. You'll find, as many others have, that it's smart to deal with Crown.

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ST. LOUIS HOUSTON MADISON

INDEPENDENT AND HELPFUL

WATCH SALES GO UP

with Cartons by

MICHIGAN CARTON CO.

BATTLE CREEK • MICHIGAN

Beetle

GIVES COLORFUL HOUSINGS TO HELIOS LIGHTERS

THE Helios Lighter Company arrayed their product in a wide range of brilliant, permanent colors in appropriate combinations for every purpose, with these molded Beetle* cases.

Beetle's lustrous color, its strength, light weight and durability, may be successfully combined to give the color-appeal and display value that will bring increased sales to *your* product. We will gladly send you an interesting brochure on Beetle's wide range of uses in packaging.

BEETLE PRODUCTS DIVISION OF AMERICAN CYANAMID COMPANY
34 ROCKEFELLER PLAZA, NEW YORK, N. Y.

*Trade-Mark of American Cyanamid Company applied to urea products manufactured by it.

it's all color and in all colors